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LIVING AS WORLD NEIGHBORS

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The Macmillan Social-Studies Series is designed for basal use in geography and history from the earliest primary grades through the junior high school. These books provide the fundamentals of *geography*—which is the study of the earth and man's life upon it—and of *history*—which is the study of man's heritage from the past—and relate each subject to the other. The major aim of the series is to develop responsible citizens who appreciate the American way of life.

Living as World Neighbors is a world geography. It is organized in twelve units. Units 2 through 9 cover geographic regions of the world. The first unit and also Units 10 through 12 develop such topics as man's needs—physical, social, and spiritual—the earth's resources and their wise use, the interdependence of the peoples of the world, and the place of the United States in world affairs. Related historical information is included as background material. The book is thus a cultural geography as well as a physical and economic geography.

Each major area of the world is developed in a separate unit. Unit openings feature (1) spot-location globes to help the pupil orient himself; (2) vignettes which highlight man's life in the region; and (3) introductions which serve as a preview and provide study questions to direct the pupil's reading.

The visual aids include many maps, diagrams, photographs, and drawings in full color. These illustrations enlist interest, clarify the text, and extend its learnings. A variety of study aids enable the pupil to check concepts, vocabulary, and understandings and to carry out worth-while projects. Thus the book provides a complete and meaningful program for pupils of all levels of ability.

REVISED EDITION

LIVING AS

PRUDENCE CUTRIGHT
JOHN JAROLIMEK

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LOYAL DURAND, Jr.
J. HUBERT ANDERSON
JOHN J. BROOKS

WORLD NEIGHBORS

THE MACMILLAN COMPANY
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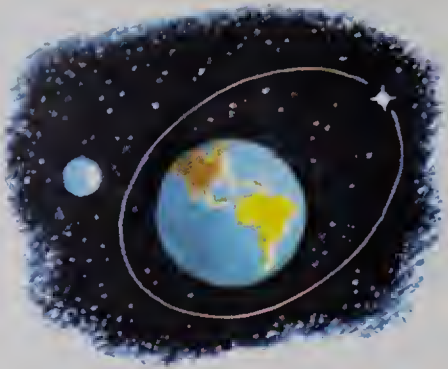

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CONTENTS

PAGE

Unit 1. The Needs of Man **viii**
1. Man's Physical Needs 2
2. The Expression of Social Needs 18
3. The Quest for the Unknown 31
4. Maps and How to Use Them 42

Unit 2. The United States and Canada **56**
1. A Quick Trip Around the United States 58
2. A Quick Trip Across Canada 97
3. Living in Greenland and Iceland 113

Unit 3. The Countries of Western Europe **118**
1. What Western Europe Is Like 120
2. Living in the Northern Lands 128
3. Living in the Atlantic Lands 139
4. Living in Central Europe 161
5. Living in Mediterranean Europe 166
6. Our Ties with Western Europe 173

Unit 4. The Lands of Latin America **178**
1. What Latin America Is 180
2. Living in Middle America 189
3. Living in the Andean Lands 200
4. The Plata River Lands 210
5. Brazil, Giant of the Tropics 216
6. Our Ties with Latin America 221

Unit 5. Soviet Lands **224**
1. What the U.S.S.R. Is Like 226
2. What Soviet Europe Is Like 236
3. What Soviet Asia Is Like 251
4. Life Under Russian Communism 256

Unit 6 North Africa and the Middle East **264**
1. The Moslem Lands and Peoples 266
2. The Lands of North Africa 271
3. The World's Largest Desert 280
4. The Lands of the Middle East 282

Unit 7. The Countries of the Far East **300**
1. The Lands of the Far East 302
2. The Subcontinent of India 308
3. Living in Southeast Asia 320
4. China, Past and Present 325
5. Living in Japan and Korea 337
6. What the East Indies Are Like 347
7. Our Ties with the Far East 351

Unit 8. Australia and the Islands of the South Pacific **356**
1. Our Interest in the Pacific 358
2. Island Groups of the Pacific 364
3. New Caledonia and the Fiji Islands 368
4. Living in the Philippine Islands 370
5. Living in New Zealand 373
6. Living in Australia 377
7. The Pacific World Today 389

Unit 9. Africa South of the Sahara **392**
1. Africa's Past 394
2. Africa's Natural Regions 400
3. The People and How They Live 403
4. The Countries of Africa 407
5. The Future of Africa 421

Unit 10. Developing World Resources **424**
1. Our Natural Resources 426
2. Making a Living from Natural Resources 434
3. Wise Use of Natural Resources 444
4. The Importance of Human Resources 453
5. Protecting and Developing Human Resources 455

Unit 11. Sharing Our World **464**
1. Economic Ties That Bind Nations 466
2. Ties of Understanding Between Nations 482
3. Ideals That Nations Share 490

Unit 12. The United States in World Affairs **504**
1. A Struggling Young Nation 506
2. A Rising World Power 508
3. Widening Responsibilities 510

PAGE
Reference Tables **514**
United States of America 514
Territories and Dependencies of the United States 515
Canada 515
Latin-American Republics 515
European Possessions in the Atlantic and the Caribbean 516
The Countries of Europe 516
The U.S.S.R. 517
The Countries of Asia 517
The Countries of Africa 518
Australia and the Pacific Islands 519
World Cities of 1,000,000 and More 520

Word List **521**

Index **525**

LIST OF MAPS, DIAGRAMS, AND GRAPHS

PAGE

Physical and Political Maps

Political Map of the World (*full color*) 44–45
Physical Map of the World (*full color*) 48–49
The United States (*full color*) 61
Industrial Regions of the Northeast 62
Industrial Regions of the Southeast 67
Industrial Regions of the North Central States 74
Industrial Regions of the South Central States 75
Industrial Regions of the Mountain States (*full color*) 81
Industrial Regions of the Pacific States (*full color*) 88
Industrial Regions of Canada 102
Canada (*full color*) 104
A Polar Projection (*full color*) 110–111
Europe (*full color*) 122
Industrial Regions of Western Europe 125
The Scandinavian Empire (*three maps*) 129
The Roman Empire at Its Height 148
England under Alfred the Great 148
Europe at the Death of Charlemagne 149
Europe about 1360 149
Europe from 1871 to World War I 152
Europe after World War I 152
Europe after World War II 153
Germany after 1949 153
Latin America (*full color*) 182
Industrial Regions of the Caribbean Lands 193
Industrial Regions of South America 202
Union of Soviet Socialist Republics (*full color*) 228
Early Settlements in Russia (*full color*) 233
Russia under Ivan IV (*full color*) 233
Russia under Catherine the Great (*full color*) 233
A Trip in European Russia 237
Industrial Regions of the U.S.S.R. (*full color*) 248
A Trip in Asiatic Russia 252
The Spread of Communism 260
North Africa and the Middle East (*full color*) 268–269
Asia (*full color*) 305
Industrial Regions of Southeast Asia (*full color*) 316
Southeast Asia (*full color*) 320
China Proper and the Han Empire (*full color*) 328
Industrial Regions of Northeast Asia (*full color*) 340
Islands of the Pacific (*full color*) 360–361
New Zealand 374
Australia 378
Africa (*full color*) 397
Newly Independent Nations 490

PAGE

Special Purpose Maps

Cradles of Civilization and the Fertile Crescent (*full color*) 23
Routes of Some Early Explorers (*full color*) 31
Latitude and Longitude Lines 43
The Western Hemisphere 46
Polar Map of the World 46
Cross Section of Mexico 46
Latitude and Longitude 47
World Climates (*full color*) 52–53
World Population (*full color*) 52
World Rainfall (*full color*) 53
Population and Area, United States and Canada 58
Oil Fields and Principal Pipe Lines, United States 77
Principal Irrigation Areas, United States 83
St. Lawrence Seaway and the New York State Barge Canal 105
World Trade, United States and Canada 109
Population and Area, Europe 121
Inland Waterways of Western Europe 124
Principal Railroads of Europe 126
Cross Section of Scandinavia and Finland 132
Cross Section of the British Isles 140
Barbarian Migrations in Western Europe 148
Roman Walls and Cities in England 148
Medieval Trade Routes 149
Cross Section of Central Europe 156
Cross Section of the Mediterranean Lands 168
World Trade of Western Europe 172
Population and Area, Latin America 184
Pan-American Highway 196
World Trade of Latin America 215
Cross Section of the U.S.S.R. 226–227
Population and Area, the U.S.S.R. 230
Inland Waterways of the U.S.S.R. 243
City of Moscow 244
World Trade of Soviet Russia (*full color*) 257
Population and Area, North Africa and the Middle East 267
The Suez Canal 278
Cross Section of the Middle East 282
PAGE
World Trade, North Africa and the Middle East (*full color*) 292
Middle East Oil Fields and Pipe Lines 293
Cross Section of the Far East 302–303
Monsoons—July and January 304
Population and Area, the Far East 306
The Khyber Pass 310
Population in China (*full color*) 336
World Trade of the Far East (*full color*) 348
Some Explorers of the South Pacific 362
International Date Line 370
Population and Area, the South Pacific 373
World Trade, Australia and New Zealand (*full color*) 381
Cross Section of Africa 394
Population and Area, Africa 395
Some Explorers of Africa 399
World Trade of Africa (*full color*) 416
World Cotton Farming 436
World Corn Farming 436
World Rice Farming 437
World Wheat Farming 437
World Petroleum Fields 440
World Manufacturing Regions 440
Population Map of the Old World 453
Principal Railroads of the World 472–473
World Ocean Transportation 474
Principal Air Lanes of the World 476
Principal Religions of the World 492–493

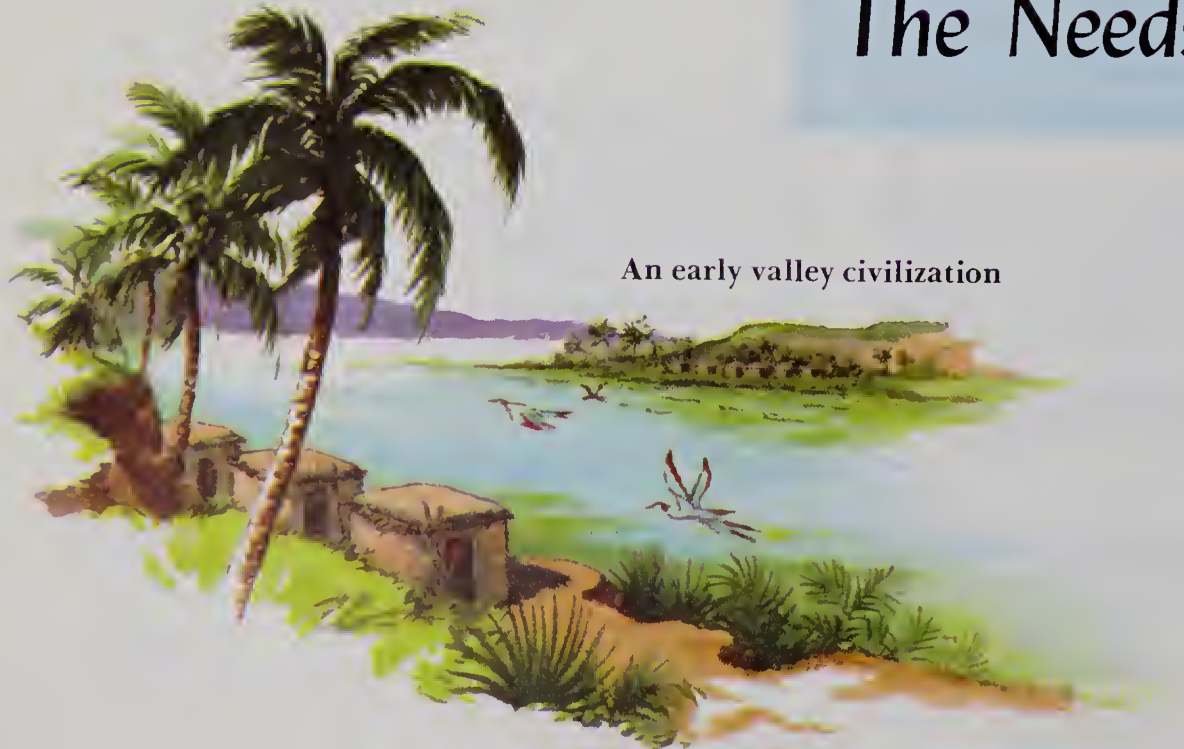
Graphs and Diagrams

Wheat Production of the United States and Canada (*graph*) 108
Production in the United States and the U.S.S.R. (*graph*) 258
Land Use in Iran (*graph*) 297
Oil Production in Iraq (*graph*) 297
Cotton Production in the Middle East (*graph*) 297
Petroleum Production in the Middle East (*graph*) 297
Coral Atoll (*diagram*) 366

A modern community

I.

The Needs of Man



An early valley civilization

A TRAIN steamed into Minneapolis, Minnesota, on a warm summer day in 1870. Among the passengers was a man who made it clear that he had come to stay.

"From what I hear," he exclaimed, "Minneapolis has everything a person can want. It has factories that are looking for men to hire. It has churches, schools, stores, and newspapers. Steamboats travel up and down the Mississippi River to and from Minneapolis. Now it has this railroad all the way to Chicago!"

"That's right," agreed the conductor. "You have come to a good town. It is just about the fastest-growing place in the United States. Less than fifty years ago this was a wilderness. Now it has 13,000 people."

Minneapolis had, indeed, become a thriving community—and for good reasons. It was built in a fertile farming region near the place where the Mississippi River drops to form the Falls of St. Anthony. The falls furnished power to saw logs into lumber and to grind wheat into flour. The logs came from thick forests near Minneapolis. Farmers from miles around brought their wheat to the busy mills near the falls.

Below the falls the Mississippi flowed down through the heart of the nation. Minneapolis thus had a fine water route along which to send its products to customers in other parts of the country.

The newcomer saw all of this and much more. He observed that Minneapolis had stores where food, clothing, and other goods were sold. Near the stores were a post office, a telegraph office, and a city hall for the town government. Streets, lined with homes, branched out from the center of the town. There were schools and churches.

As time passed, this frontier town grew into a large city with thousands of homes. It expanded until it met the growing town of St. Paul, which was also built on the Mississippi. Known as the "twin cities," they now form one large continuous city area.

Today Minneapolis is one of the nation's largest cities. St. Paul is the state capital. The Falls of St. Anthony still supply the city with power—by generating electricity to run the wheels of mills and factories. The Mississippi River continues to furnish water transportation for the twin cities. Railroads, air lines, and highways also serve the city. It has fine hospitals. Its university is one of the largest in the nation.

The first settlers in Minneapolis gained their living by using the near-by natural resources. The people of the great city of Minneapolis do the same today. Their ways of working and living have changed since 1870, but the basic needs of the people remain the same.

Wherever they live in the world, people need food, clothing, and shelter. They like to live together in communities. All people have these needs. They differ only in the ways that they satisfy them and in the kind of communities they build.

In the pages to come, as you learn about the peoples of the world, you will discover why this is true. In this unit you will find the answers to these questions:

1. What are our physical needs, and how are they satisfied?
2. What are our social needs, and how are they expressed?
3. Why do we seek the unknown? In what ways do we carry on the search?

1. MAN'S PHYSICAL NEEDS

About three hundred years ago a small ship sailed from Chile. After twelve days at sea the craft ran into a storm. Pounding waves drove it onto a sand bar. When the crew saw the ship was doomed, the men went over the side and got into a lifeboat.

As it drifted near the shore of an island, the lifeboat upset in the angry sea. The waves were high. All but one man perished in the storm.

The lone survivor was cold and wet. He had no food, so he was hungry, too. As the sun went down, he climbed a tree and spent the night among the sheltering branches.

When he woke the next morning, he found a stream of fresh water and satisfied his thirst. But he still lacked food. Then he spied the wrecked ship. It had not sunk.

Quickly he swam out to the vessel and searched for supplies. He found food, blankets, and tools, which he took back to the island on a raft.

He then gathered logs and branches of trees. With them he built a crude hut.

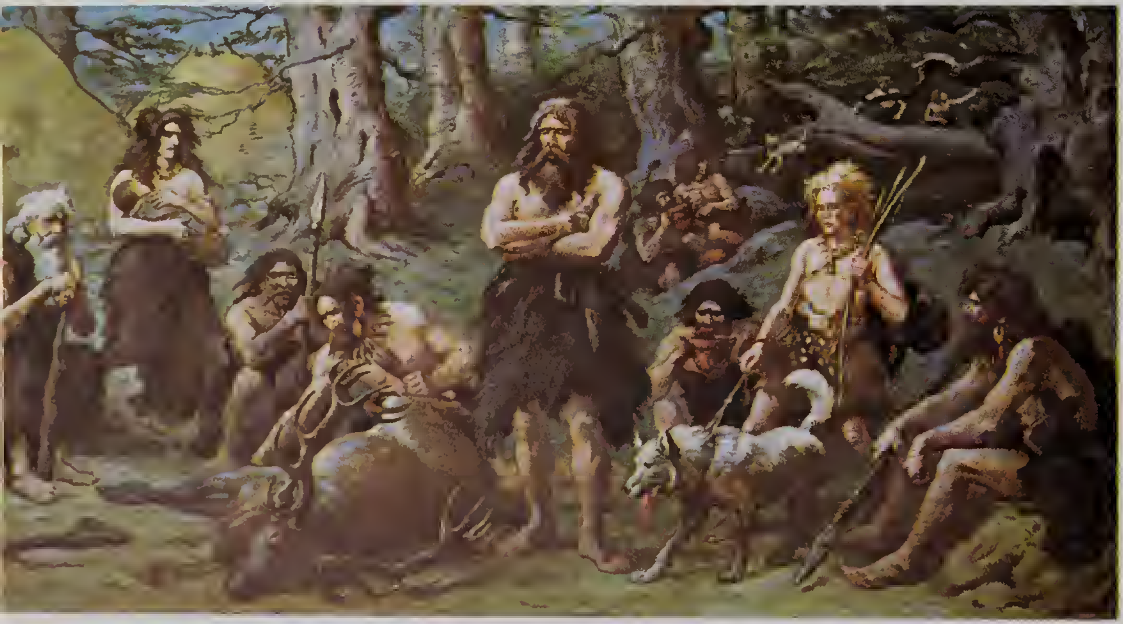
Soon he began searching the island for food. He was successful in finding fruit, berries, and roots. He killed a wild goat for meat. The skin of the goat was tough and strong. He used it to make a new garment since his clothes were now beginning to wear out. From then on, goats provided him with both meat and clothing.

During this time, the man's only friends were a dog and two cats which he had brought from the ship. He was lonely. One day a friendly young Indian appeared on the island. The man had now found a human companion.

The two men searched for food together. They worked side by side when their shelter needed repair. They also explored the island.

The shipwrecked sailor in this true story was a man named Alexander Selkirk. In his book about Selkirk's adventures Daniel Defoe, a famous English author, named him Robinson Crusoe. He called the Indian Friday because that was the day of the week on which the Indian first appeared.

American Museum of Natural History



These early men have just returned from a hunt in which they killed a stag. The animal will provide clothing as well as food. What weapons did they use for hunting? Notice the dog the men have tamed.

Eventually, the two men were rescued by a passing ship which took them to London, England. There they led easier lives, for they did not have to find their food, make their own clothing, and build the house that sheltered them. In a large community like London they could depend on the services of others for many of their needs. But they still required food, clothing, and shelter, just as all people have in all times and all places.

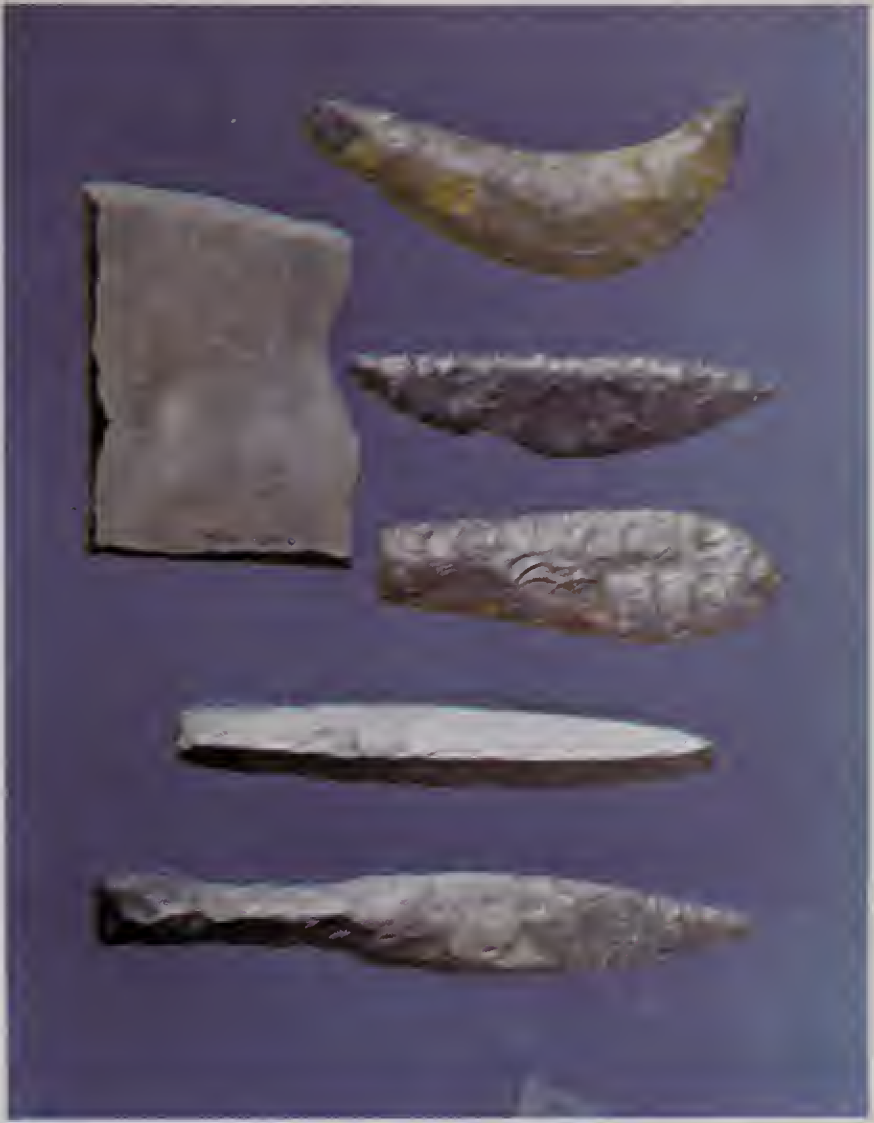
From the time that man first appeared on the earth, he needed food, clothing, and shelter. The struggle to obtain the physical necessities of life occupied most of his attention. It makes up a large part of the life of people today.

Early men did not know how to write, so they did not leave written records for us to read. But they left behind them, in caves or communities where they had lived, certain things they had used. Some of these reminders of early men, like those shown in the picture on this page, still exist.

Scientists have studied these early weapons and tools. Embedded in the earth of the caves were found the bones of animals killed by early men. On the walls of caves were drawings made by the inhabitants.

The weapons, tools, bones, and drawings became important clues to the scientists. Like modern detectives, the scientists studied these clues and pieced together much of the story of these early people.

Scientists who explore caves and dig into ancient ruins for the purpose of studying human life in the past are called *archaeologists*. The discoveries of archaeologists have told us much about early men—how they secured food, clothing, and shelter, the kind of communities they lived in, and the ways they worshiped.



American Museum of Natural History

Early men shaped tools and weapons out of stone. The stone implements above are some of the tools early men used for their work.

FOOD, THE FIRST GREAT NEED

Early men, we are told, spent much of their time looking for food. They ate what they could find or catch. In grassy areas they gathered wild seeds. In the forests they picked berries and nuts. They hunted birds and animals. Along rivers and beside the sea they caught fish. Shellfish were among the easiest to catch. Great piles of shells have been found near the caves where early men lived. These people stayed in one place only so long as food was plentiful there. They moved to another place when food became scarce. Since these people did no farming, they did not stay long in one place.

Hunters and fishermen

Early men learned to be skillful in fishing and hunting. They had to be in order to outwit their prey. A fisherman waited patiently beside a stream. When he saw a fish, he reached into the water and grabbed it if he could. A hunter slipped up behind an animal and killed it with a club or a stone.

Later, the fishermen learned to strike at fish with stone spears. They discovered how to make hooks from fish bones. They twisted animal hairs together and made nets. With the spears, hooks, and nets they caught more fish than with their bare hands.

Hunters made wood or stone spears which they could throw. They invented the slingshot. With the slingshot they could heave rocks faster and farther. They discovered how to make and use bows and arrows. With such weapons they could fight beasts from a safe distance.

Some hunters depended on traps. They dug pits into which animals would fall. With strong grass or animal hairs the huntsmen formed loops called *snares*. The snares were good for trapping birds and small animals.

The successful hunter or fisherman ate immediately after making his catch. He had no way to save meat. It was good only when fresh. He had to go hunting or fishing each time he was hungry.

The first farmers

After many thousands of years of gaining their food by hunting, fishing, and seed gathering, men made an important discovery. They learned that food plants could be grown by planting seeds. They probably discovered this by accident. Someone may have dropped a few seeds near the entrance to his cave. Or perhaps he threw away some seeds that he did not need. Later, when he found new plants growing beside his door, he remembered that it was the spot where the discarded seeds had fallen.

After this, people began to save part of their supply of seeds in order to plant them. Then they waited for the plants to grow and produce seeds. From each harvest, they obtained seeds to eat and seeds to scatter. They were the world's first farmers.

Scientists think that the first farmers probably lived, about 8000 years ago, in a land called Mesopotamia. This warm, fertile valley through which two rivers flowed was a favorable place for men to begin to farm. Today the land is called Iraq, and the rivers are the Tigris and the Euphrates. Iraq is located near the eastern end of the Mediterranean Sea, where Asia joins Europe.

On this fertile ground near the rivers the early farmers planted their crops. As time went on, they learned how to irrigate their crops with water from the rivers during the long, dry periods.

The region of the Tigris and Euphrates rivers was one of four fertile valleys in the world where early men began to farm. Another such region, also near the Mediterranean Sea, was the valley of the Nile River in Africa. The other two early farming regions were the valley of the Indus River in Pakistan and the valley of the Hwang Ho, or Yellow River, in China. Find these four regions on the map on page 23.

Each of the four valleys had good soil, river water to irrigate crops during dry periods, and a favorable climate. These were necessary conditions for farming. As a result, the valleys became the homes of early men who gave up their roaming to settle down and tend crops. Later, as we shall see, the people who inhabited the river valleys learned to work together in many ways.

These early men have learned how to farm. The two men are using forked sticks as plows to break up the ground for planting. Notice the stone hut with the pointed thatched roof in the background.

The seeds of wild grasses were probably the first seeds planted by man. As these plants were tended and watered, they produced more and larger seeds. From them men gradually developed the grains known as barley, wheat, rice, and corn.

Near the Mediterranean Sea the early farmers grew wheat and barley. Rice was first grown in the Far East. Indian farmers in Central America developed maize, or corn.

Four kinds of grain thus became important foods in ancient times. These four—wheat, barley, rice, and corn—are still used as basic foods all over the world.

After learning how to grow grain, men learned to cultivate plants which we call vegetables. They set out groves of trees which bore fruits and nuts. They tended vines and bushes which produced berries.

Each new farm product added a food for people to enjoy. They liked their meals better when they had fruits and vegetables. The wider variety of fresh foods helped to make people stronger and healthier, too.

The first herdsmen

While learning to grow grain, early farmers needed more food than they could get from their small harvests. So when they did not work in the fields, they fished and hunted.

Attracted by the crops, wild animals sometimes ventured into the valleys in search of food. Wild sheep, goats, cattle, and hogs wandered into fields of grain. The farmers often killed such animals for food. But they soon learned that they could tame many animals and keep them in herds. They could then have meat without going hunting.

Farm animals supplied new foods, too. In addition to meat, they furnished milk. Families could either drink the milk or make butter and cheese from it.

Storing food

While finding new foods, men also worked at the task of storing and keeping foods for future use. They knew that they would go hungry if their supplies ran out before new crops were ready to be gathered.

Grain was the easiest food to store. The earliest seed gatherers learned how to save small hoards of grain. They stored the grain in a dry place where it would not rot and where animals could not reach it.

Meats, fruits, and vegetables were harder to keep. People soon found that these foods kept fresh longer in cold weather than in hot. It took them a long time to learn how to keep foods in different kinds of weather. The methods that we use to preserve foods today, such as canning and freezing, were not developed until recent times.

Producing food today

The nearly three billion people that inhabit the world today have many different ways of getting food. They also vary greatly in the ability to get enough food to satisfy their hunger.

Near the Kalahari Desert of Africa, for example, there are tribesmen who have never learned to farm. These primitive men still rely on hunting animals with bows and arrows. Although the hunters are clever, their food supply is uncertain. They do not have as sure a food supply as do the people who plant crops.

Some South American Indians, Pacific islanders, and Australian tribesmen have never taken up farming. They, too, are hunters or fishermen, just as early men were. Most countries, however, depend on farming for most of their food.

Today about three out of every five persons in the world are farmers. Many of them have up-to-date machinery and enough land to grow large crops. These farmers are also skilled in *technology*. That is, they use scientific processes in farming. Through their knowledge of technology they can produce more and better crops on their farms. This is true in the United States and in such countries as Canada, Argentina, and Australia. Each of these countries produces more of certain foods than its people can use. All of them export a large part of these foods every year to other parts of the world.

Many other nations are not so fortunate. Japan, for example, has so little farm land that the Japanese cannot grow nearly enough food for the people of their country. Japan, therefore, must buy food from other nations. So must Great Britain, Greece, and other countries which do not have sufficient farm land.

In still other places, farmers do not know modern ways of producing food. Some farmers in Asia have steel plows, but most do not. Pointed sticks of wood, drawn by oxen, scratch furrows across their fields. Millions of farmers in Asia still plant, cultivate, and harvest rice by hand. With their crude tools these farmers spend far more time in growing crops than modern farmers do. In lands where the farmers are unskilled, many of the people do not get nearly enough food to satisfy their hunger.

Thus we see that throughout the world men differ greatly in their ability to obtain food. But it is still a basic physical need of all people everywhere.

CLOTHING, A SECOND GREAT NEED

Early men had need of clothing for warmth. They needed clothing to protect them from the thorny bushes through which they ran in pursuit of game. They needed shoes to protect their feet.

The clothing of early men

Suppose, for the moment, that you are a young man in a primitive tribe and that you need new clothing. You know that you must make it yourself from whatever materials you can find near by.

What you look for will depend on the time of year and the place where you live. Perhaps it is fall and the weather is turning cold. You want a material that will keep you warm while you are out hunting and fishing. Your garment also must protect you at night in your unheated shelter.

As you can easily guess, animal skins are the best answer to your problem. So you go out to hunt an animal. If you are skillful with your spear or your bow and arrow, you will come back with a wild sheep or goat, bear or deer, fox or wolf.

You skin the animal and save the meat to eat. After scraping the inside of the skin, you hang it up to dry. A few days later it is dry, but it is hard and stiff. It would be uncomfortable to wear, so you soften it by rubbing oil or fat into it with your hands.

Now you are ready to cut and sew. With a rough stone knife you cut the skin into pieces of the shapes you need. You fasten the pieces together with the sinews of animals or with plant fibers. Your needle is a sharp-pointed piece of bone or flint.

"Not much to work with," you say. No, but these were all the tools that early man

Both men and women wore clothes made from the skins of animals. The woman is sewing animal skins together with a bone needle. One man is using rawhide to fasten a handle to his spearhead. Another man, in the background, is scraping skins with a knife to make them softer when worn.

had. His materials were crude, and so were his tools. Yet his garment kept him warm and shielded him from scratches and bruises. With his feet wrapped in strips of skin, he could go out in the coldest weather to hunt.

Perhaps it is summer when you need your new garment. Now that the weather is warm, you want a lighter, cooler garment. As you look around you for materials, you see the tall grasses in the meadows. You decide to make a grass skirt. So you pluck bunches of grass and weave them together.

When you finish, your skirt resembles the thatch on a roof. Or you may decide to make your skirt from the leaves of trees and to tie them together with grass. Your garment made of grass or leaves may not last long, but it will protect you from the weather. It will shed rain on wet days and keep off the burning rays of the sun.

You could also make your clothing from the bark of trees. For this you need tender bark that can be pulled off the trees in long, thin strips. You weave the strips into mats. Then you cut and sew the mats together.

Garments of this kind, made of animal skins, grass, or leaves, would be uncomfortable to us. But early man did not mind because he had not found anything better.

Improved fabrics

Archaeologists cannot tell us exactly when or where man first discovered better materials for his clothing. He may have begun to experiment with plant fibers and sheep wool as long as 8 000 years ago. Men in different parts of the world probably were finding new ways to clothe themselves at about the same time. Their materials and methods would vary with the climate.

The people pictured below have learned to spin thread into yarn and to weave the yarn into cloth. One woman is winding yarn, while the other is weaving the yarn into cloth on a simple loom.

Metropolitan Museum of Art

The beautiful silk costumes shown above illustrate the designs that the ancient Chinese wove into their silk cloth. The Chinese were the first people to weave the soft, shiny cloth called silk.

The discovery of how to use wool took place after men in the river valleys had tamed wild animals. People who kept flocks of sheep dressed themselves in sheepskins. Later they found that they could cut tufts of wool from sheep and form the wool into strands. Men knew how to weave by this time. They had learned the skill by working with grass and strips of bark. So they made a simple loom and wove the strands of wool into cloth.

The Egyptians, who lived in the Nile Valley, learned to work with a water plant called flax. They soaked the stems in water until the woody parts of the stems dropped away, leaving strong fibers. The first material they wove from these fibers was coarse. Later they separated the fibers into finer strands. They twisted the strands into thread. From this thread they wove cloth. It was the world's first linen.

The Egyptians began weaving linen cloth more than 4000 years ago. Archaeologists have found pieces of the material in old tombs. It is finer, softer linen than is made today. The Egyptians could justly be proud of the quality of their linen.

The people of India were probably the earliest to discover the usefulness of the fluffy, white material that grows in bolls on cotton plants. After experimenting with it, they learned how to spin cotton thread and to weave cotton cloth. As time went on, they learned to make fine cotton cloth and to dye it in beautiful colors.

The Chinese were the first people to produce silk. From the cocoons of a certain kind of caterpillar, they unwound the long, delicate strands. Then they twisted many of the strands together to make strong thread. From this thread they wove the soft, shiny cloth that we know as silk. Like the people of India they learned to dye their cloth in beautiful colors. The Chinese were probably working with silk at the time when the Egyptians were beginning to weave fine linen.

People today wear garments made of wool, of linen, of cotton, of silk, and of fur. Our clothing is better made and therefore more comfortable, but most of the basic materials are the same as those that were developed in early times.

Improved methods

For thousands of years the making of cloth and clothes was slow work. Each family spent many hours at the task. Even with the help of simple tools, man could not quickly make large quantities of cloth.

Cloth did not become more plentiful until men invented machines to do their spinning and weaving. With machines to help them, people at last could have an abundance of cloth. Inventors also made machines to speed the task of sewing.

Early men wrapped their feet in strips of leather or bark when they needed good protection. In warm weather they went barefoot or tied light sandals of bark and grass to their feet.

Later, men learned how to fit fur snugly around their feet. They scraped hides and treated them to make leather. With leather, men could cut and sew shoes which fit them even better.

Shoemaking, like spinning and weaving, was slow work for a long time. Families tanned their own leather and made their own shoes. Each pair of shoes required many hours of labor. It is hard to imagine what this was like because today great factories make our shoes. We can choose our footwear from many styles and colors.

Clothing today

Some people in the world today still make their clothing in the same way that their early ancestors did. The hunters of Africa and South America, for example, weave their garments of grass or make them from animal skins. In some parts of Asia bamboo trees supply the people with material for clothing. The Eskimos of northern Canada and the Lapps of northern Europe wear garments of fur made from the skins of animals they have trapped or killed during the hunt.

Some countries in Asia and Africa have factories where cloth is woven, but many Asians and Africans cannot afford to buy cloth made in factories. They still spin thread and weave cloth at home in the old way.

By comparison, the United States and other modern nations depend largely on factories to produce cloth and to make clothing. Our garment makers work with cotton, wool, linen, and silk—and certain new materials developed in recent times.

Chemists combine coal, air, and water to give us nylon, a material that resembles silk. They use wood pulp and cotton to produce rayon. Some kinds of rayon resemble silk. Others resemble wool. From special chemical formulas dacron and orlon are made. We call the new textiles *synthetic* because the threads from which they are woven have been made in a laboratory. Synthetic textiles are artificially produced, but they resemble natural materials in usefulness and beauty. They help to give us a wide choice of materials from which to make our clothing.

Thus we see that people today have different ways of clothing themselves. We share with early man the need for clothing. We need the protection of clothes, and we enjoy good materials. Clothing is one of the necessities of life.

One of man's earliest shelters was made of animal skins. Such a shelter was called a tent. Early men were hunters, and they were able to take their tents with them when they moved in search of game.

SHELTER, THE THIRD ESSENTIAL

Early men needed shelter long before they learned how to build dwellings for themselves. They sought protection from storms. They desired shade on hot days and warmth in cold weather. They looked for places to make their homes where dangerous animals could not attack them.

Living in caves

Early men first found permanent shelter in caves in hills and mountains. Animals liked caves, too, so the men were careful when they entered a strange cave. They had to find an empty cave. If animals were already living in a cave, the men sometimes drove them out.

After claiming a cave for himself and his family, man protected the entrance with a great stone. The stone kept out animals during the night. In the morning, when he left to go hunting and his wife went seed gathering, he rolled the stone into place so that animals could not enter the shelter.

The first builders

Men began to build shelters for themselves because they wanted better ones than they could find by chance. Besides they could not always count on discovering a cave.

The first shelter that early man made for himself may have been a cave dug with sharp stones in the side of a hill. Or, in warmer lands, he may have built a hut from tree branches and thatched it with leaves or grass. In any case the materials he used were those found near where he lived.

A man of the forest gathered branches and braced them against a tree or a boulder. His crude shelter was a lean-to. He improved it by tying animal skins together and stretching them over the branches. The cover shielded him from rain and wind. Later he discovered that he could take a few long, straight limbs and use them to support the skin cover. In this way he made a tent.

Mud proved to be one of the most useful materials of all. Man found he could construct a hut with mud walls, or he could plaster the sides of a grass hut with mud or clay. Mud or clay could be used to hold stones together in a wall. It could also be shaped and dried in the form of bricks.

The first bricks may have been made in the Nile River valley. We know that thousands of years ago the people of Egypt mixed mud with straw and put the mixture in molds. The hot sun dried the mixture and hardened it into bricks. The bricks were used to build houses and walls.

The people of the Tigris-Euphrates Valley built their dwellings of sun-dried bricks, too. Later, they discovered that fire was useful in drying bricks. These bricks were harder and stronger than sun-dried bricks.

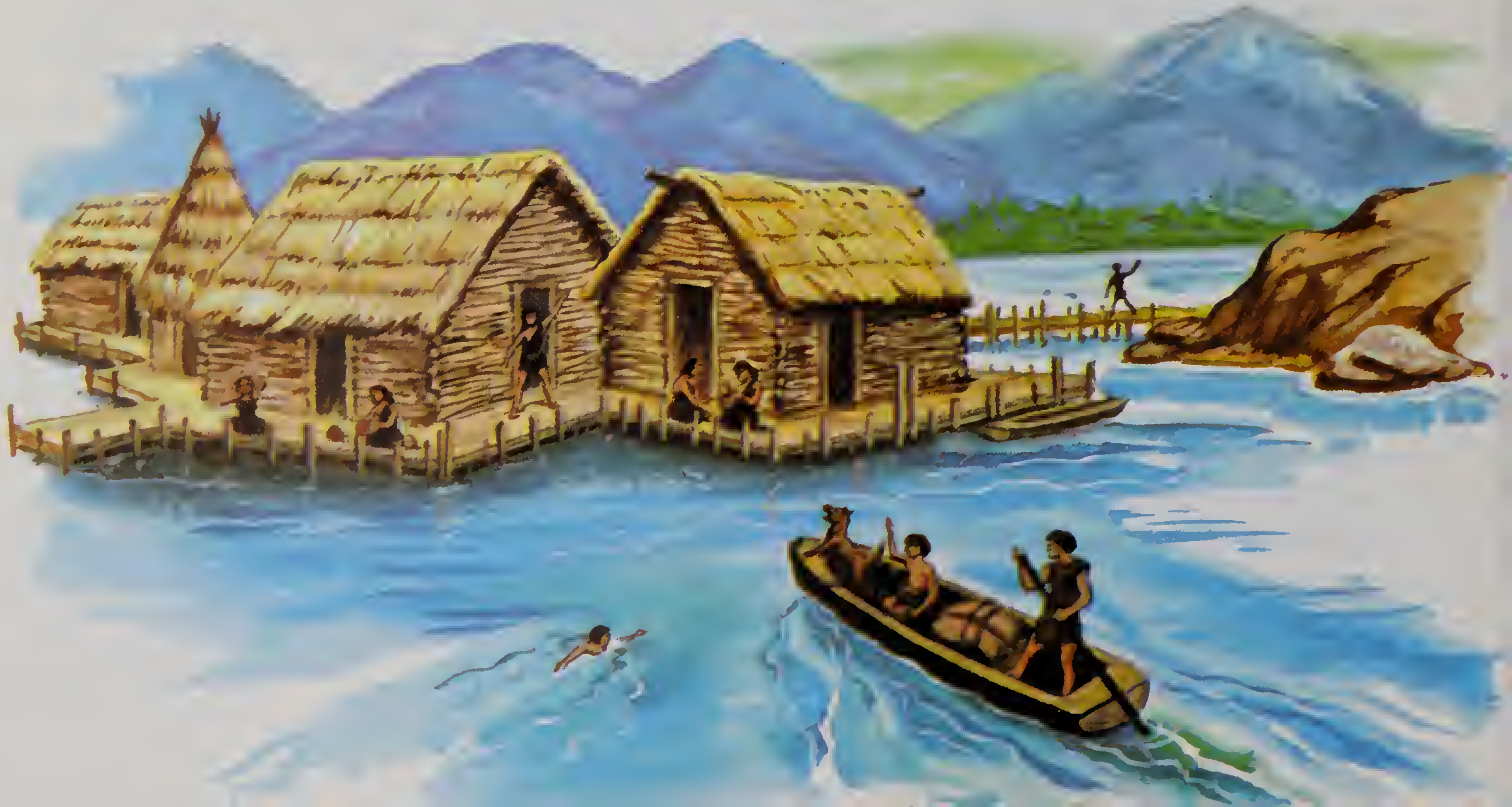
Shelters of many kinds

Men have built different kinds of shelters with a variety of materials. In Egypt and Mesopotamia, for example, wood was hard to find, so the people learned how to build with bricks of mud. They had few windows in their houses because they wanted to keep out the heat of the sun.

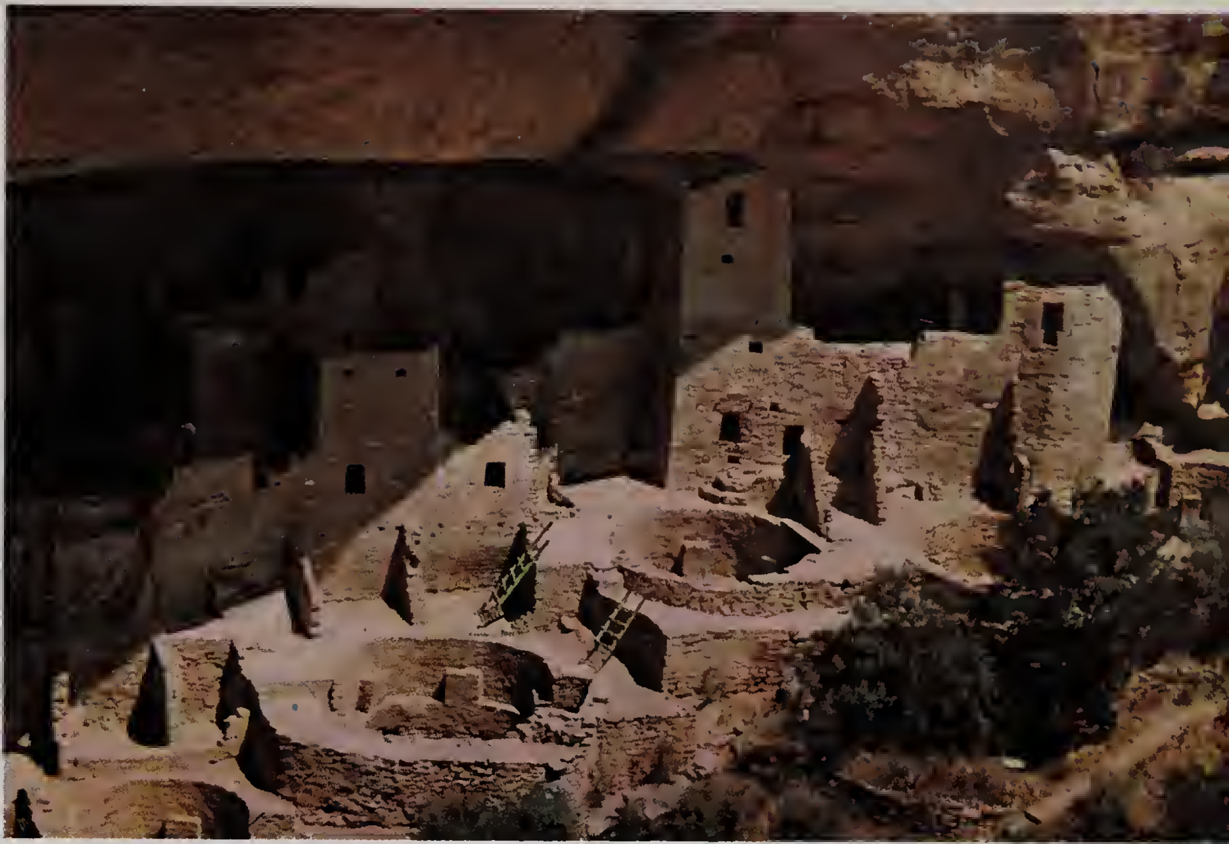
Farther south in Africa, where the weather was hot, men built shelters in trees. They tied branches together and lashed them to the limbs of a tree to form the floor. The roof and walls were made of leaves or grass woven together. From his high perch, the tree dweller could see any person or animal who approached. He could defend himself against unfriendly visitors.

Some of the early inhabitants of Switzerland were lake dwellers. They built their homes out in the lake. To do this, they drove poles down through the water deep into the mud below. Then they piled heaps of rocks between the poles. On the tops of

Other shelters used by early men were houses built on wooden piles driven into the lake bottom. Ruins of early lake villages like the one shown below have been found in parts of Switzerland.



An ancient shelter of the Indians in the Southwest was the cliff dwelling. The cliff dwelling was built in stories. You can see some of the stories in the old ruins that are shown here.



Willard Luce

the poles and rocks they built wooden platforms to support houses made of twigs, mud, and grass. They used boats to go ashore.

As time passed, the water in the lake rose and covered the houses. What happened to the people we do not know. But their dwellings remained. Then in recent times during a drought the waters of the lake went down. And there stood the houses built thousands of years before! The lake dwellers had built their homes on the lake, where they had a sure food supply and where they were protected from land animals.

Stone was plentiful in Ireland, so most of the Irish built stone houses. If a man could not find enough stones of the right size, he made a sod house. Sod is grass-covered earth. The builder cut chunks of sod and piled them up for walls, leaving openings for doors and windows. He covered the house with a roof of straw tied down with ropes of twisted grass.

Indians in the eastern forests of North America built small shelters called wigwams and large dwellings known as long houses. Both kinds were built mainly of bark.

The Indians who roamed the Great Plains hunting buffalo made skin-covered tents called tepees. They chose this kind of dwelling because they were *nomads,* or wanderers. Nomads need shelters that are easy to move from place to place. The Indians covered their tepees with buffalo skins because buffaloes were plentiful on the western plains.

Some of the Indians who lived in the hilly Southwest cut deep holes in cliffs. These cliff dwellings were built in stories, one above the other, somewhat like modern apartment houses. These Indians reached their homes by using ropes and ladders. They built their homes high up, where they could see approaching enemies and protect themselves against attacks. These homes were more permanent than the tepees of Plains Indians.

Other Indians in the same part of the country built themselves homes of stone and clay. The two materials were easy to find. The wet clay hardened under the rays of the hot sun. Many Navaho Indians still live in shelters of this kind.

In the far north some Eskimos built homes of ice and snow. They cut blocks of ice for the walls and tops of their low, round igloos. Then they packed snow in the chinks to make their igloos snug and warm. In the summer they lived in tents of animal skins or in stone huts.

Shelters around the world

People around the world today occupy many different kinds of shelters. The shelters differ greatly in the materials from which they are built, in appearance, and in comfort.

There are differences, for example, between the homes of settled people and the shelters of nomads. The wandering Arabs of North Africa and the herdsmen of Tibet live in tents. In the way of life they follow these nomads do not need permanent dwellings, such as we have in the United States.

These Arabs are setting up a tent for shelter.

Jean and Franc Shor, American Museum of Natural History

There are also differences based on climate. Heavy rains fall on the islands between Asia and Australia, so tree houses and houses built on stilts are popular. The people who live in them want to stay high above the wet ground. They do not need the sturdy dwellings required in cold climates.

One of the greatest differences in homes around the world arises from the fact that people vary in the ability to build good dwellings for themselves. For example, millions of people in India live in small mud houses with thatched roofs because they have no better material. India is a densely populated country. Its people lack the knowledge, skill, and modern equipment to build comfortable homes and to raise enough food for India's hungry millions.

Most of the homes in the United States tell a different story. In our country a large proportion of the people can own or rent homes that are sturdy and comfortable.

The materials of the nomad's tent, of the Navaho's shelter, and of the mud hut of India, all come from the earth. So do the building materials of our homes. The wood comes from the forest, stone is taken from quarries, the bricks are made of clay, and the glass used for windows is made of sand.

One difference, however, should be noted. Men living in primitive ways still construct their homes of materials found near by. In the United States and in the other progressive nations materials brought from faraway places are sometimes used in the construction of houses. But the houses themselves all meet the same need of the people who inhabit them. Each is a shelter from the weather. Each is a home to the members of the family who live under its roof.

The Amazon Indians live in much the same way as they did long ago. They catch fish for food with spears and simple nets.

Photos by Harold Schultz, A.M.N.H.

HOW MAN SATISFIES HIS PHYSICAL NEEDS

To obtain food, clothing, and shelter, man always has had to work. As we have seen, early men hunted and fished for their livelihood. Thousands of years later, men learned to farm. Today modern men have many occupations from which to choose.

Great changes have thus taken place in men's ways of work. But work itself remains the means by which men earn or secure their physical needs.

Kinds of work

The work that a man does depends partly on where he lives. Early men who lived in forests, where animals were plentiful, depended chiefly on hunting. Those who dwelled near an ocean were more likely to be fishermen. In the river valleys, where people learned to plant seeds and raise food crops, men became farmers.

When Europeans first came to North America, they found that the woodland Indians were deer hunters. Indians who roamed the Great Plains were buffalo hunters. On the Pacific coast, many Indians were salmon fishermen. The work done by each group of Indians was determined by the place in which they lived.

There are people who live in much the same way today. Some Indians in the jungles of South America live by hunting animals. In the South Pacific and some other Pacific islands the people have great skill at catching fish in nets. In the arctic regions, Eskimos are able to fish through holes in the ice.

In a modern and progressive country like the United States man's choice of occupation is not limited by his place of residence. An individual can select any one of many different occupations.

Adding new skills

Early men first developed the skills required for hunting and fishing. After learning to farm, they developed other skills.

As time passed, farmers gained the ability to perform a wide variety of tasks. They learned to plow fields, plant seeds, harvest grain, and tend flocks of animals. To secure clothing, they learned to spin thread, weave cloth, and sew garments.

Having settled in one place to tend their crops, they wanted permanent shelters. So they learned how to build homes of bricks or wood, clay or stone.

The place where people live has an effect on the way they build their homes. We saw how the forest Indians built with bark, the Plains Indians with buffalo skins, and the Navahos of the Southwest with clay. Each Indian tribe had skills which they developed in using materials near at hand.

To accomplish their many tasks, farmers developed simple, but useful tools for every task. At first, each person made his own tools. The farmer, therefore, became a man of many skills. He was a plowman and a harvester, a herdsman, a weaver and a builder, and a maker of tools.

Development of co-operation

After awhile people began to observe that they varied in their abilities. Some were especially good at growing grain but showed less ability in weaving cloth. Others excelled as builders, or weavers, or toolmakers.

As men discovered their special abilities, a new system of working began to develop. It is called *division of labor*. Under this system, each family no longer tried to raise all their own food and at the same time to do all their weaving, building, and toolmaking. Division of labor meant that each person could spend most of his time performing the task he did best.

Thus, a good weaver could devote his major efforts to the task of making cloth. He could then trade a piece of cloth for a loom constructed by the toolmaker. Both the weaver and the toolmaker could trade their products for grain, since the farmer needed cloth and tools.

In order to develop these separate trades, people had to work together, or co-operate. The farmer had to be willing to grow more food than his family needed so that he might trade grain for tools or cloth. The weaver and the toolmaker had to agree that they would exchange their products for a certain quantity of food.

By co-operating in this way, people did a better job of meeting their physical needs. Under the division-of-labor system of working men began producing more food, clothing, and other goods. That was possible because each one was using his best skills.

As time went on, men found new tasks, such as digging for metals and constructing great buildings. Each different job required men to develop new skills and new tools.

Rewards of better work

By adding to their skills, people have made greater use of the soil and other resources. For example, in 1492, the area that is now the United States mainland satisfied the simple wants of about 350,000 Indians. Today the land on which they roamed yields, in great variety and abundance, food, clothing, and shelter for 180,000,000 people.

To describe such a change in the satisfying of our physical needs, we speak of a *standard of living*. Early men had to be content with the barest necessities. Their standard of living was low. As men learned to satisfy their needs in more and better ways, their standard of living rose.

Today the standards of living vary greatly around the world. As you will read in later units, hundreds of millions of people in the world spend their lives in poverty. They do not know modern ways of working. So they do not make the best use of their resources.

Mexico, Colombia, and Brazil have good resources, for example. But many of their people are unskilled and poorly educated. Because they do not make full use of their resources, they have a low standard of living.

By comparison, the people of Denmark, Switzerland, and Norway have limited resources with which to work. Yet they have received a good education and thus can make the best use of their resources. As a result, the people of Scandinavia have a high standard of living.

Our own country has both good resources and many well-trained people. Therefore, we enjoy one of the highest standards of living on earth. To safeguard this, we must continue to support the good schools in which our people are trained. We also must conserve, or protect, the resources which support our high standard of living.

Do you know—

1. What physical needs do all people have?
2. Where did the first farmers live?
3. What four kinds of grain were developed by early farmers?
4. Who were the first people to produce linen? Cotton cloth? Silk?
5. What system of working led to the production of more goods?
6. How did the Scandinavians develop a high standard of living?

Words and Terms to Remember

snare
nomad
synthetic
satellite
standard of living
division of labor
archaeologist
technology

A Matching Game

The phrases below explain the words or terms listed above. Number a paper from 1 through 8. After each number write the word or term which matches the definition.

1. A system of working in which each person performs the task that he does best
2. A person with no permanent home who wanders from place to place, taking his possessions with him
3. A scientist who explores caves and digs in ruins to study human life in the past
4. Applying scientific methods to such work as farming and industry
5. A small planet that revolves around a larger one; also a man-made body that revolves around a planet
6. A noose made of grass or hair which is used to trap birds or animals
7. Produced artificially in a laboratory
8. The level at which people use their resources to provide the necessities and comforts of life for themselves

2. THE EXPRESSION OF SOCIAL NEEDS

At the beginning of this unit we learned about a shipwrecked man who had to find food, clothing, and shelter for himself just as the first people did. Then he found another man on the island who helped with the work and who was a companion to him.

Before that time Robinson Crusoe was lonely. After he met Friday, he had someone to share his life with him. The two men learned to speak words that each could understand, and so they could tell each other what they thought and felt.

The story of these two men on their lonely island is an example of the need that we all have for the companionship of others. In other words, man is a social being. To be happy, he must be able to satisfy his social needs as well as his physical needs.

THE BEGINNING OF GROUP LIFE

Early men discovered the advantages of living and working together in groups. An individual found that life was better when he had the companionship of his family. He and his family were safer, in a world filled with danger, when they joined other families to form a tribe.

Sharing security

Members of the tribe stood together. They joined forces against the attacks of foes. Families with caves shared their shelters with those who had no protection.

Each individual came to realize that his own safety depended on the well-being of the whole tribe. If the tribe was weak, he was exposed to danger. If the tribe was strong, he was more secure.

Obtaining food

To obtain food, the men of the tribe learned to work as a team. They formed hunting parties to cover as much territory as possible each day. A group of hunters

Early men learned to work together in groups, as the picture below shows. Two men are making pottery by shaping clay and baking it in the fire. A third is painting a design on the pottery.

was better able to corner animals and kill them than one man alone was.

The return of successful hunters brought joyful cries from the women and children who had remained in camp. Near the fires over which their meat was roasted, members of the tribe gathered to eat. The food belonged to the whole tribe, and all shared in the feast. But when the hunting was poor, everyone went hungry until food was found.

Communicating with others

To exchange information, the people of a tribe probably depended on signs at first. A hunter might point to indicate fresh animal tracks he had found. A child would lift his hand to his mouth as a sign that he was hungry. Some of the Indians of North America, for example, were using such a sign language when Europeans first came to the New World.

While using such signs as these, people began to make noises to emphasize their meaning. Because certain signs and sounds were made together, the sounds came to have special meanings. Thus the sounds grew into words and a language was born.

The language served the tribe in many ways. It enabled the men to plan their hunting and the defense of the tribe. Women could talk about the care of children and the cutting of garments from animal skins. Children, listening to their parents, could learn how to avoid danger.

From conversations in caves and around camp fires, children also learned the ways of the tribe. There were lessons on why the tribe moved from place to place. There were stories of past hardships and of victories over other tribes. These stories were repeated again and again until boys and girls learned them by heart.

As they talked and listened, members of the tribe were drawn closer together. Because they used the same language, they felt special ties of loyalty and friendship.

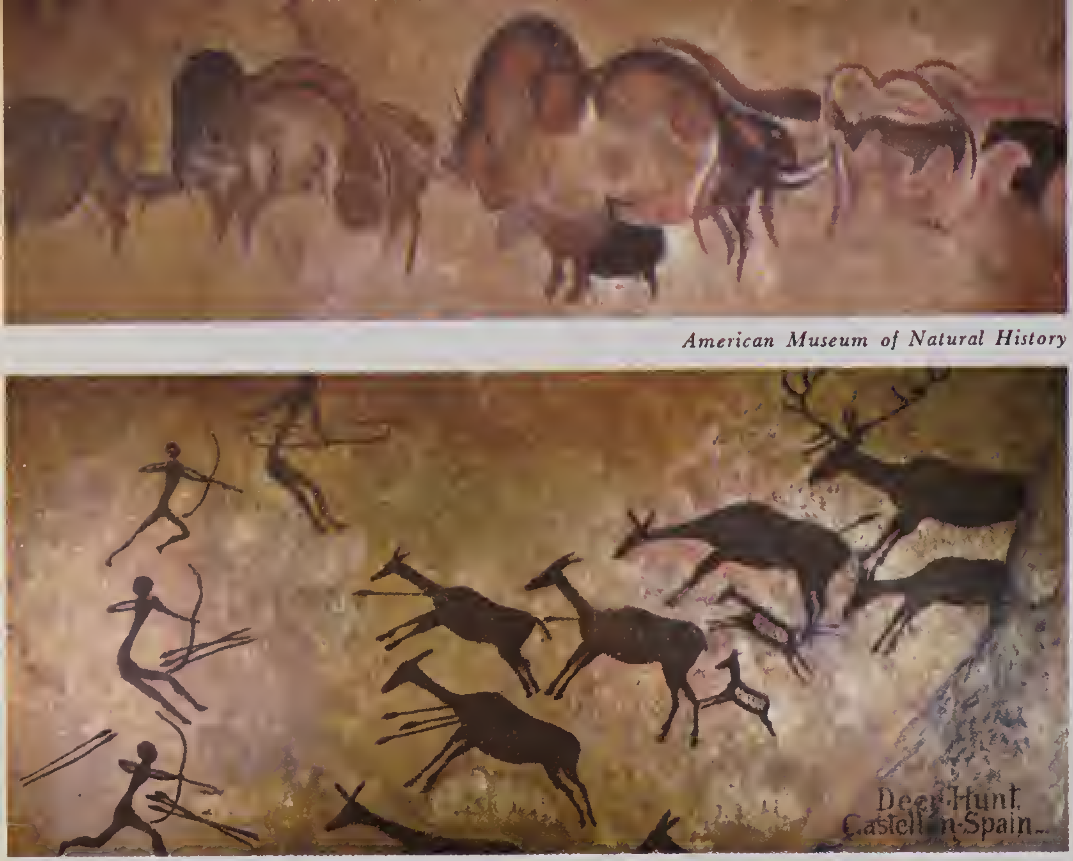
The ties of loyalty remained strong even when the tribe grew so large that it spread out over a wide territory. Scattered bands of the tribe kept in touch with one another by sending runners who bore messages. Some tribes used smoke signals, while others beat on drums to spread news and sound alarms. The Indians of North America used all of these methods of communication.

Early men spoke the language of their tribe, but they could not write it. They had not learned how to make marks that stood for sounds and words. So they could not keep written records of their experiences. Many thousands of years were to pass before writing was invented.

Meanwhile, some persons began to draw pictures. On the walls of caves, they scratched, cut, and painted the likenesses of the animals they knew. The pictures sometimes showed beasts lurking in the forest and hunters stalking their prey. These pictures, preserved in caves, are a record of some of the activities of early man.

Archaeologists who have studied the cave drawings describe them as picture writing. In picture writing pictures take the place of words. Early men could tell a story in pictures, but not as well as it can be told in words.

The men who made these pictures were the world's first artists. Perhaps they were the same persons who carved the little statues sometimes found in caves. These little statues, made from stone, ivory, and bone, were small figures of people and animals. The men who made them were the first sculptors in the world.



American Museum of Natural History

Archaeologists have found pictures of bison and a deer hunt drawn by early man on the walls of caves. From such pictures they have learned much about the way early men lived.

In the caves archaeologists have also found weapons with carved decorations on their handles and pottery bowls with designs drawn on them. The decorations and designs had meaning for the people who made them, just as cave pictures did.

THE BEGINNING OF GOVERNMENT

Early men had no written laws. But they worked out ways of hunting animals together, fighting enemies, and sharing food. Members of a tribe also developed certain habits of speaking and behaving toward one another. Such habits, when followed by a group or tribe, are called customs.

Early customs

Some tribal customs were so strong that anyone who did not obey them was sure to feel the displeasure of the tribe. One of the most important customs arose from the desire to protect the personal possessions of the individual.

The early hunter's most valuable belongings were his weapons. He made his own spear, or bow and arrows, and he depended on having them ready to use at all times. Anyone who took his weapons deprived him of his means of securing food.

The tribe, therefore, tried to protect each hunter's rights of ownership. It was understood that a person who took the weapons of another man would be punished. This understanding was as important to the tribesmen as written laws against stealing were in later times.

When a man broke a custom, he was brought before leaders of the tribe for judgment. The leaders followed still other tribal customs in deciding how to punish him.

Chiefs and leaders

The tribal leaders had many duties besides handing out punishment. As the bravest and strongest men, they made plans to protect the tribe in time of danger. They were the best hunters, so they led expeditions in search of food. If the hunting was poor, the leaders decided that the tribe should move.

After a time, one man in the tribe usually came to be looked upon as the chief. He won his place by proving that he was braver or wiser than the rest. The tribe was willing to follow him and obey his commands. With a chief to lead them, members of the tribe felt safer and stronger than before.

PRIVATE COMMUNITIES

When did early men form the first tribe, speak the first words of a language, draw the first pictures? When did tribes begin to observe customs and live under chiefs?

We do not know. Each new idea probably was a long time in developing. Thousands of years passed while men were trying new ways of living and working together.

During this time men were making useful beginnings. When they formed tribes, they discovered some of the benefits to be gained by living in communities.

The earliest villages

The earliest villages apparently began along river valleys where the climate was favorable. People settled in these valleys after they learned to grow grain. With a sure food supply, they no longer had to live as nomads. They could stay in one place.

To be near the river and its life-giving water, these early farmers lived close to one another. They became members of a settled group, just as they had been members of a roving tribe. In their small villages, they improved on the tribal customs.

The need for laws and government

For thousands of years tribal customs were the rules by which early men lived. The rules were simple because each tribe was concerned chiefly about getting food, clothing, and shelter. Members of the tribe had few personal possessions. Hunters had their own weapons, but the land on which they hunted belonged to all.

Farmers in the river valleys began to develop the idea of personal, or *private property*. Each farmer planted his own field of grain. Having done the work of scattering seeds, he felt entitled to reap the harvest. The ripe grain belonged to him—not to someone who lived in another part of the valley. It was his private property.

Some farmers worked hard to tend large fields and to tame animals. Men who kept busy in this way were quick to. protest if their grain or animals were taken by lazy neighbors. When a man found land that produced good crops, he tried to keep it. He did not want to be driven from his fields. He expected other men to find their own fields.

So a need arose for rules that would protect property. The rules, or laws, against cutting another man's grain, raiding his herds, or seizing his fields had to be strict. Thus laws to protect private property developed. Later, men needed laws to keep the buying and selling of grain, animals, and land fair.

As a valley community developed, new laws were needed. Someone in the community had to see that the laws were obeyed. Laws and obedience to laws thus became part of an orderly plan under which men could live in a community. The name for such a system of laws is government.

Early men had a simple form of government, which was managed by their chiefs. Because new problems arose after men settled in villages, people saw the need for more laws and officials to carry out the laws.

The need for co-operation

Establishing a government required people to co-operate. They had to be willing to live under the laws of their community. People also found it desirable to join together in other enterprises. Through co-operation, they could do more than they could alone.

It was necessary, for example, for the group to co-operate in meeting the attack of enemies. Together the men might build a wall around the village to keep out invaders. They might also construct towers from which sentries could watch for foes.

When war did not threaten, there were peaceful tasks that demanded the work of many hands. Groups of men built irrigation systems for turning the water of rivers into dry fields. Large community buildings rose after men learned the value of co-operation.

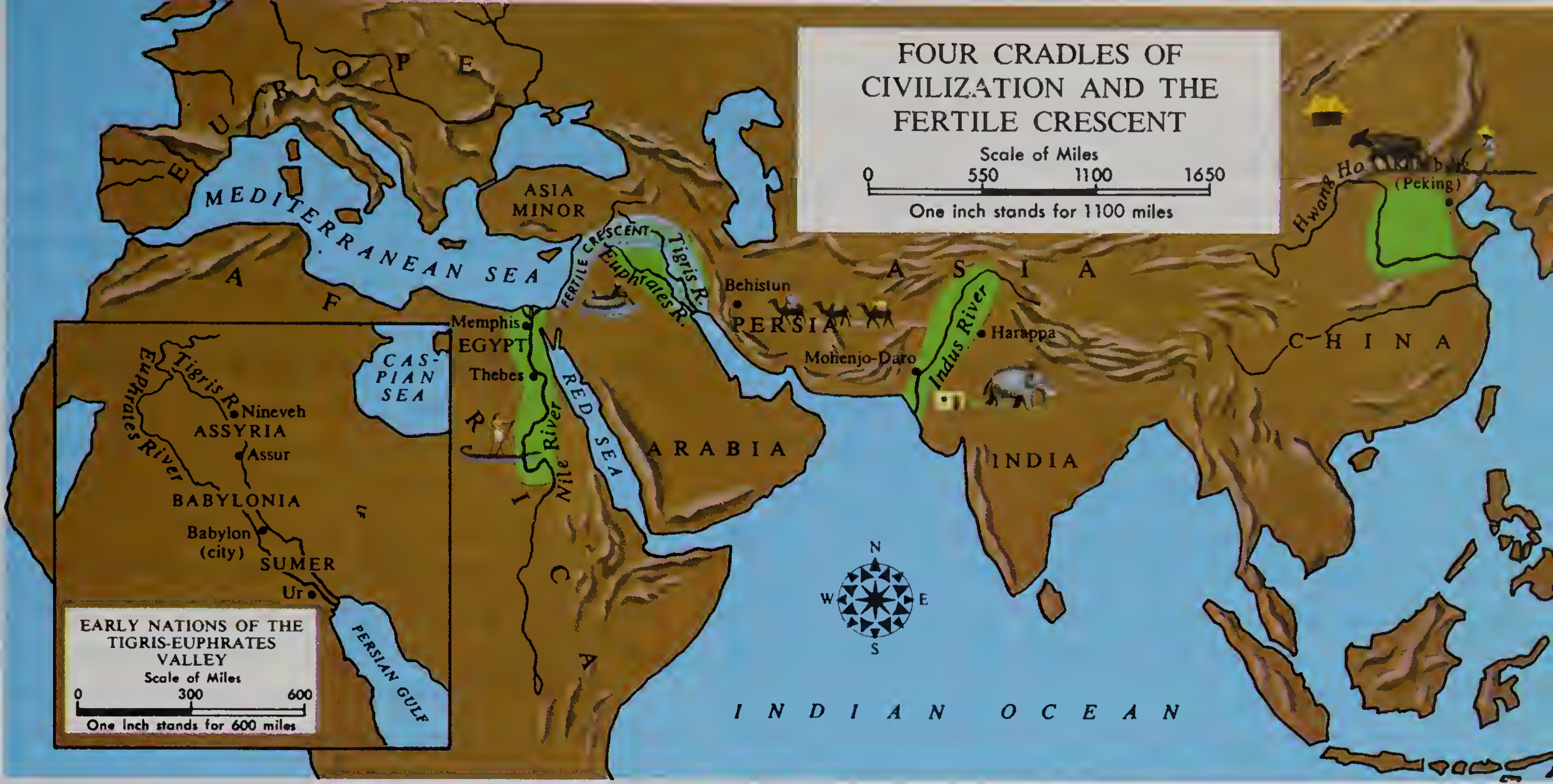
In the villages boys and girls learned to obey laws. They also found that people must work together to improve their communities.

FOUR VALLEY CIVILIZATIONS

With each bit of progress that men made, life became better for both individuals and groups of people. They improved their ways of living and showed their ability to work together for the good of all. By doing so, they were becoming civilized.

The earliest records of such civilized ways of living were found in the four great river valleys of the Nile, the Tigris-Euphrates, the Indus, and the Hwang Ho. As time went on, these valley communities grew and continued to make important progress. For this reason, these communities are often described as *cradles of civilization*.

In the fertile Nile Valley of ancient Egypt, the farmers irrigated their land with water drawn from the canals. Egyptians were one of the earliest people to develop civilized ways of living.



The areas in green show where the earliest civilizations grew up. Do you know what led to the development of civilization in these valleys? Of what modern countries are these regions a part?

Find these four valleys on the map above. Note that they lie between 30 and 35 degrees north latitude. Thus, the four valleys are in regions which are described as "temperate." They are neither frozen by the cold nor baked in constant heat as are the lands that are far to the north or to the south.

This climate was favorable for men to settle in these valleys. The soil was fertile and well watered. In these favorable locations, where there was almost no frost, people could raise more than one crop a year. This insured a plentiful supply of food. The mild climate also made the securing of clothing and the building of homes easier. Thus men had time to develop civilized ways of living.

Egypt, in the Nile Valley

The Nile River begins near the heart of Africa and flows northward to the Mediterranean Sea. The Nile passes through many miles of desert. But a strip of land along each side of the stream is fertile because the soil has been deposited there by the river when it overflows its banks each year.

On this good land the early Egyptians lived in small communities or villages. Later, the villages of certain areas united and formed small kingdoms. By 3400 B.C. the people of the whole region were living under one king, known as the Pharaoh. The letters B.C., meaning Before Christ, tell us that this was 3400 years before the birth of Christ.

The Pharaoh handed down many laws for the people to obey. Judges and courts decided when laws had been broken and told how wrongdoers should be punished. The people paid taxes to meet the costs of running the courts and supporting the Pharaoh.

As their communities developed, the Egyptians felt the need for a way to put words into writing. With writing, it would be possible to keep records and set down laws.

The earliest Egyptian writing was made up of pictures and signs, called *hieroglyphics*. Some of the signs represented actual objects, while others represented only parts of words.

Later, a simpler form of writing that was easier to use was adopted. This system had an alphabet of twenty-four letters. The letters could be combined to form sounds and words, just as we use our alphabet. The Egyptians probably borrowed the alphabet from neighbors with whom they traded. They continued to use hieroglyphics as well as the alphabet in their records. Many temples and tombs are covered with hieroglyphics carved in stone.

The Egyptians used a writing material made from the stems of a tall water plant, called papyrus, that grew along the Nile. This writing material also came to be known as papyrus. From the word "papyrus" we get our word "paper." The Egyptians wrote on papyrus with sharp-pointed reeds dipped in ink made from soot mixed with water. Papyrus scrolls, covered with hieroglyphics, have been found buried in tombs. These writings, called "The Book of the Dead," tell us much about what the Egyptians considered right and wrong.

These people of the Nile Valley constructed a good irrigation system by building a network of canals to carry water from the river to their fields. They built great pyramids and temples. Their ships carried on trade with other lands.

The Egyptians also liked to surround themselves with beautiful things. Weavers took pride in producing fine cloth. Metal workers became skilled at shaping gold into attractive articles. Carvings in stone and decorations on the walls of temples tell of a love of beauty on the part of the Egyptians and their desire to express it in art. Art is one of man's highest forms of communication with his fellow men.

Thus, the Egyptians found many advantages through living and working together. They grew to be highly civilized people.

The land of the Twin Rivers

The Tigris and the Euphrates rivers flow through the warm region between the Mediterranean Sea and the Persian Gulf. These twin rivers enclose a broad valley which became known as Mesopotamia. It was the home of farmers in early times and a region where people developed civilized ways.

The first people to live in the land between the rivers were called Sumerians. Like the Egyptians, the Sumerians invented a system of writing called *cuneiform*. At first, the Sumerians cut the wedge-shaped signs in stone. But stone was scarce in Mesopotamia, so they began to write with sharp sticks on tablets of soft clay. After a clay tablet was covered with cuneiform signs, it was baked until it was hard.

Archaeologists have found many of these clay tablets and have learned to read the writing on them. The clay tablets tell the story of the wars of the Sumerians.

The king who conquered the Sumerians came from Babylon, a city in the southern part of the Tigris-Euphrates Valley. About 1900 B.C. Hammurabi moved northward with his warriors and occupied the land.

Hammurabi proved to be a wise ruler. Under his leadership, the people of the valley constructed great irrigation ditches and fine temples.

Hammurabi is best remembered today for the fine system of laws that he assembled. He ordered these laws to be carved on great slabs of stone and set up at different places in the kingdom where the people could read them. One of the slabs still survives. It contains 285 laws. Hammurabi's laws dealt with matters of great concern to people living in groups—business, marriage, wages, murder, and theft.

The laws of Hammurabi filled an important need. They enabled people to learn what the laws of the land were and required them to show greater obedience to laws.

The people who lived under the rule of Hammurabi were known as Babylonians. They showed respect for learning by establishing schools in their temples. They expressed their love of beauty by decorating their buildings with statues and carvings.

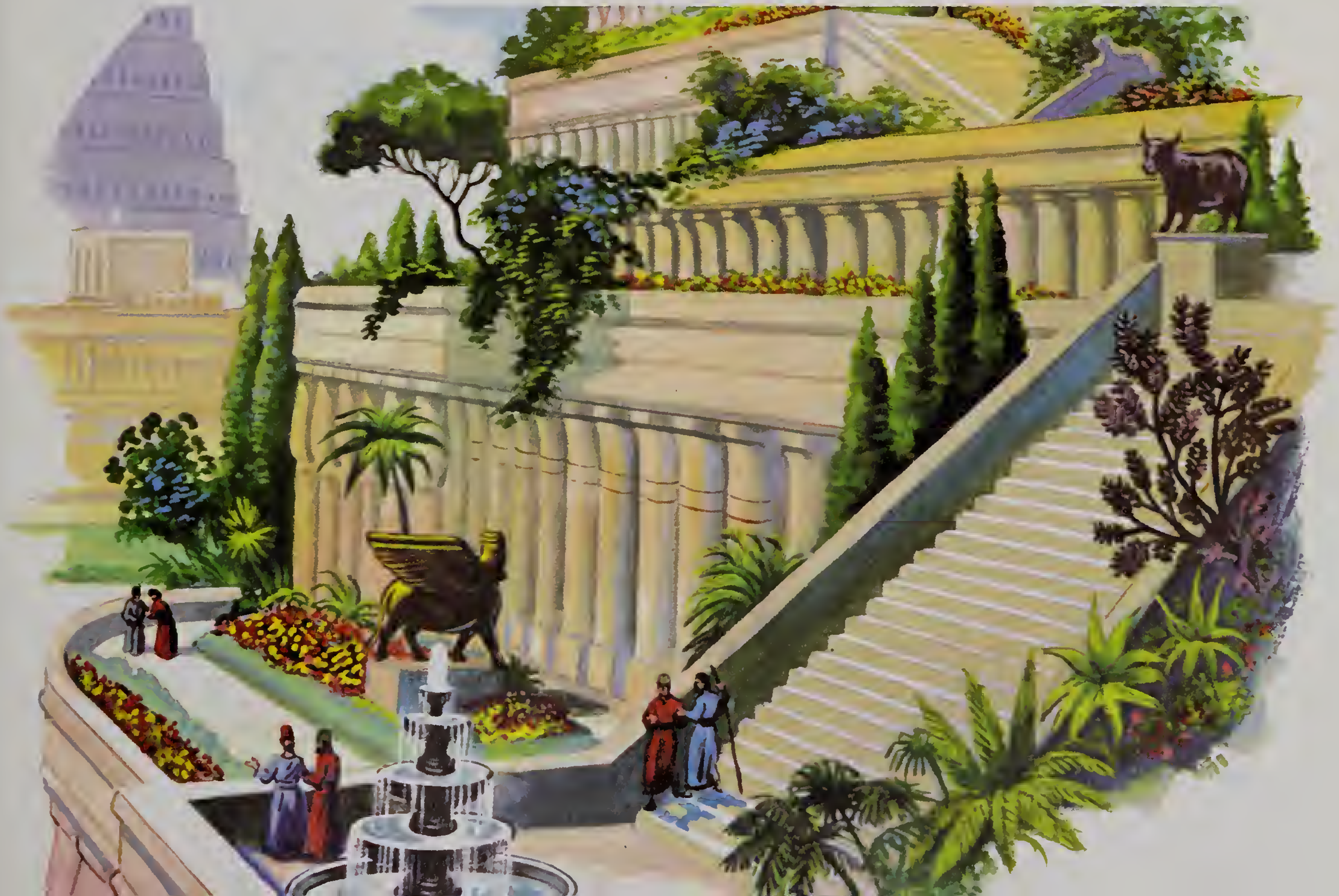
A splendid palace with "hanging gardens" was so unusual that it was known as one of the Seven Wonders of the Ancient World. The gardens were really terraces on which flowers, bushes, and trees were planted so that they appeared to be growing on the sides of a hill. The terraces became known as the Hanging Gardens of Babylon.

China, in the Hwang Ho Valley

A third great cradle of civilization was the valley of the Hwang Ho, or Yellow River, in Asia. The people who settled there in early times became known as Chinese. Ancient China won fame for the work of its artists, builders, and scholars.

The artists produced articles of unusual beauty, such as silk tapestries, bronze bowls, and vases. The artists also carved figures in bronze and stone, and they painted pictures of outdoor life.

Among the Seven Wonders of the Ancient World were the Hanging Gardens of Babylon, built by a king of Babylon. Beautiful trees, flowers, statues, and fountains covered the terraces of the palace.



Many thousands of men helped to construct the Great Wall of China. It was a high wall, extending for hundreds of miles, which was built to keep out enemies. To travel on water, they dug hundreds of miles of canals to connect their rivers. There were roads and bridges for land travelers.

Two great discoveries made by the Chinese contributed much to the art of communication. First, they learned how to make paper from wood fibers and rags. Second, they learned how to print with blocks of wood and pieces of movable type. With the two discoveries it was possible to print books and thus spread knowledge. This was important to the Chinese, for they were a people who valued learning.

Certain emperors of China showed their admiration for learning in a special way. They required each person who wanted to become an official of the government to take an examination. Any citizen could take the test. Persons who made the highest grades were appointed to hold office.

The Indus Valley communities

On the southern rim of Asia is a great peninsula that reaches out into the Indian Ocean. Today most of this peninsula is occupied by the Republic of India. In the northern part of the peninsula, in two separate sections, is the nation of Pakistan.

The Indus River flows through the part of Pakistan that lies in the northwest corner of the peninsula. In the valley of this river ancient peoples developed civilized ways of living. (See the map, page 23.)

In the Indus Valley archaeologists have found the remains of several large cities. The remains show shops, temples, and houses built of sun-dried bricks. The cities attracted people from distant places who wanted to trade. Caravans of camels carried articles of gold, silver, and ivory overland to neighboring countries. They returned with the products of other lands. Ships came with goods from Egypt and Mesopotamia and left with products of the Indian peninsula.

The people of India did not invent a way of writing. Instead they borrowed the alphabet used by the Egyptians. The recorded history of India begins with a famous book, the "Rig-Veda." This is a collection of ancient hymns, memorized by priests and handed down from generation to generation, then put into writing. But the history of the earliest inhabitants, those of the Indus Valley, is known to us only from the ruins of their communities. In later times northern invaders conquered the peninsula.

THE ADVANCED COMMUNITY

Man's progress in civilized living was not confined to the river valleys. Many hundreds of years later, people in other lands began to progress and to develop better ways of life, too. Among the lands that contributed advanced, or progressive, ideas were Greece, Rome, and England.

Greece, home of self-government

On the northern shore of the Mediterranean Sea is the hilly country of Greece. It was the home of a freedom-loving people who displayed an unusual ability in governing themselves.

The ancient Greeks learned the art of self-government in communities called city-states. Each city-state consisted of a city with the territory surrounding it. Both the people within the city and those who lived in the near-by countryside were residents of the city-state. They obeyed its laws and helped defend it against outside attacks.

Gidal from Monkmeyer

This is a view of the Acropolis in Athens today. Among the ruins stands the Parthenon. With its stately columns and splendidly carved sculpture, it represents ancient Greek architecture at its best.

For many years Athens was the leading city-state in Greece. Athens had an assembly which met forty times a year on a hillside in the city. Every citizen had the right to attend these meetings. All citizens could take part in the discussion and could vote on public problems. The citizens thus made their own laws and decided on the spending of money for public needs. Not all the people of Athens were citizens. Athens, like other cities of the times, had many slaves.

The courts of Athens depended on citizens to be members of a jury. When a person was accused of breaking a law, the jury decided whether he was guilty or innocent. All free men were treated alike in the courts.

The Greeks called their plan of government democracy. Democracy comes from two Greek words meaning "the rule of the people." Athens and other city-states of Greece were the world's first democracies. Because all the citizens of a city-state met together and voted in person for their laws, we say the Greeks practiced *direct democracy*.

Besides setting an example in self-government, the Greeks were leaders in many other ways. Greek architects designed some of the most beautiful buildings that the world has ever seen. Greek writers produced great stories, poems, and plays. Greek sculptors carved statues that have won praise from the artists of many lands.

The people of Greece were proud of these achievements. They placed a high value on knowledge and artistic ability. Scholars and artists played an important part in the life of Greek communities.

Rome and the progess of law

Rome, the capital of Italy, is a very old city. It began as a tiny village about 1000 B.C. In time, it became the center of a powerful government that ruled most of the civilized world.

The citizens of Rome gave much thought to the making of good laws. During Rome's early history one ruler had the laws carved on twelve bronze tablets and set up in a

20th Century-Fox

This view of the Colosseum was taken from the Temple of Venus in Rome. The Colosseum is an amphitheater where contests and games were held in ancient Rome. It is still a famous landmark.

public place in Rome. This system of laws became known as the Twelve Tablets. It was the duty of every citizen to know and obey these laws.

As Rome grew in power, it reached out to conquer more and more land. In all the conquered territory Roman officials required the people to obey the Roman laws.

The Romans, in turn, carefully studied the laws of the conquered peoples. Some of these laws were good ones, so the Romans added them to their own. In this way Rome collected the best laws of many lands.

The Roman system of laws thus became the most complete and useful set of laws that the world had ever known. Other peoples adopted the laws. Some nations today base their laws on Roman law.

English representative government

On the bank of the Thames River, in London, stand the Parliament buildings. Within these walls meet the men and women who run the government of Great Britain.

As members of Parliament, these people make the laws of the land. They also vote on the collection of taxes and the spending of the nation's funds. Together, they are more powerful than any king or queen.

The English Parliament grew from small beginnings. In early times a group of wise men exercised great power in England. All the laws had to be approved by this council. At times the council was strong enough to elect kings or to remove them from power.

After the Normans went across the English Channel and conquered England, the assembly became known as the Great Council. Only persons of high rank could sit in this council. Some of the early Norman kings paid little attention to the council. The freedom-loving English chafed under their rule.

As time went on, the English nobles grew more powerful. In 1265 they called a meeting of representatives chosen from all parts of England. Attending the meeting were noblemen and also men from the villages who represented, or spoke for, their communities. This was the first English Parliament. The plan of selecting a few men from each community to represent it was successful. It is the basis on which Parliament now works.

As time went on, the power of Parliament slowly increased and the power of the kings faded. Parliament thus became the sole maker of laws for the nation.

But the real power of the English government belongs to the people. They choose the men and women who serve in Parliament. Members of Parliament meet in London to direct the nation's affairs.

This system, known as *representative government,* was so successful in England that the plan has spread to other countries. In large nations direct democracy is not workable, for all citizens cannot gather together in one place as they did in Athens.

England, the home of representative government, is a land where individuals live in freedom. Like the Greeks of old, English citizens cherish and protect their rights.

WORLD COMMUNITIES

Today the world is made up of many communities. Some of the nearly three billions of people on the earth are citizens of independent nations. Others are inhabitants of colonies that are governed by countries which are far away.

Empires and colonies

We have seen how groups of people began living in different kinds of communities, first in villages, then in cities, and later in nations. In modern times many nations have sent people out to start settlements in other lands. Such a settlement, or colony, usually ships its products to the mother country and trades them for manufactured goods. This was true of the colonies that England, France, and Spain planted in the New World.

People living in the colonies also received useful ideas from their homelands. For example, democratic ideas spread from Greek city-states to Greek settlements around the Mediterranean. In the same way, many civilized ways of living traveled to new places.

History tells us of nations that have ruled other lands by conquest. Assyria, in the Tigris-Euphrates Valley, did this when it defeated one country after another. Later, Rome conquered and ruled most of the civilized world.

When a nation governs many lands, as Assyria and Rome did, we say that it controls an empire. Spain once held an empire that included lands in Africa, the Americas,

British Travel Association

This is a view of some of the British Parliament buildings, which stand on the bank of the Thames River. For what purpose are these buildings used?

and Asia. But Spain lost most of its colonies in the early 1800's. British, French, and Dutch empires also became smaller following World War II, as one colony after another gained self-government.

In the New World the United States, Canada, and the countries south of the Rio Grande are self-governing nations. Most of them won their independence many years ago. In Asia and Africa many nations have recently gained freedom. Other colonies are still working for independence.

Divisions of mankind

In the story of mankind people are described in many ways. As a member of a tribe, a man is called a tribesman. If he lives in a village, he is a villager. If he moves to a colony, he is known as a colonist. Citizens of self-governing nations are known by the name of their countries.

We find, too, that men are described according to differences in their appearance. Because of such differences, people are sometimes divided into three large groups, called races. The three races are usually classed as individuals with light skin, or *Caucasians,* those with dark skin, or Negroes, and those with yellow or reddish-brown skin, who are called *Mongolians.*

Men of science cannot tell us exactly when these differences among mankind first appeared. But we do know that people of the three races have inhabited the earth for a long, long time. We also know that people of all the races are more alike than they are different. They all have the same needs.

Many ways of life

Some of the world's people enjoy a high standard of living. Education and training help them to use their resources fully.

Where there is a high standard of living, people can obtain more than food, clothing, and shelter. They can also develop useful community institutions such as schools, hospitals, libraries, theaters, and museums.

Where people lack the skills to use their resources well, the living standard is low. This means that the people suffer for want of adequate food, clothing, and shelter. It also means that they lack many other advantages found in a modern community.

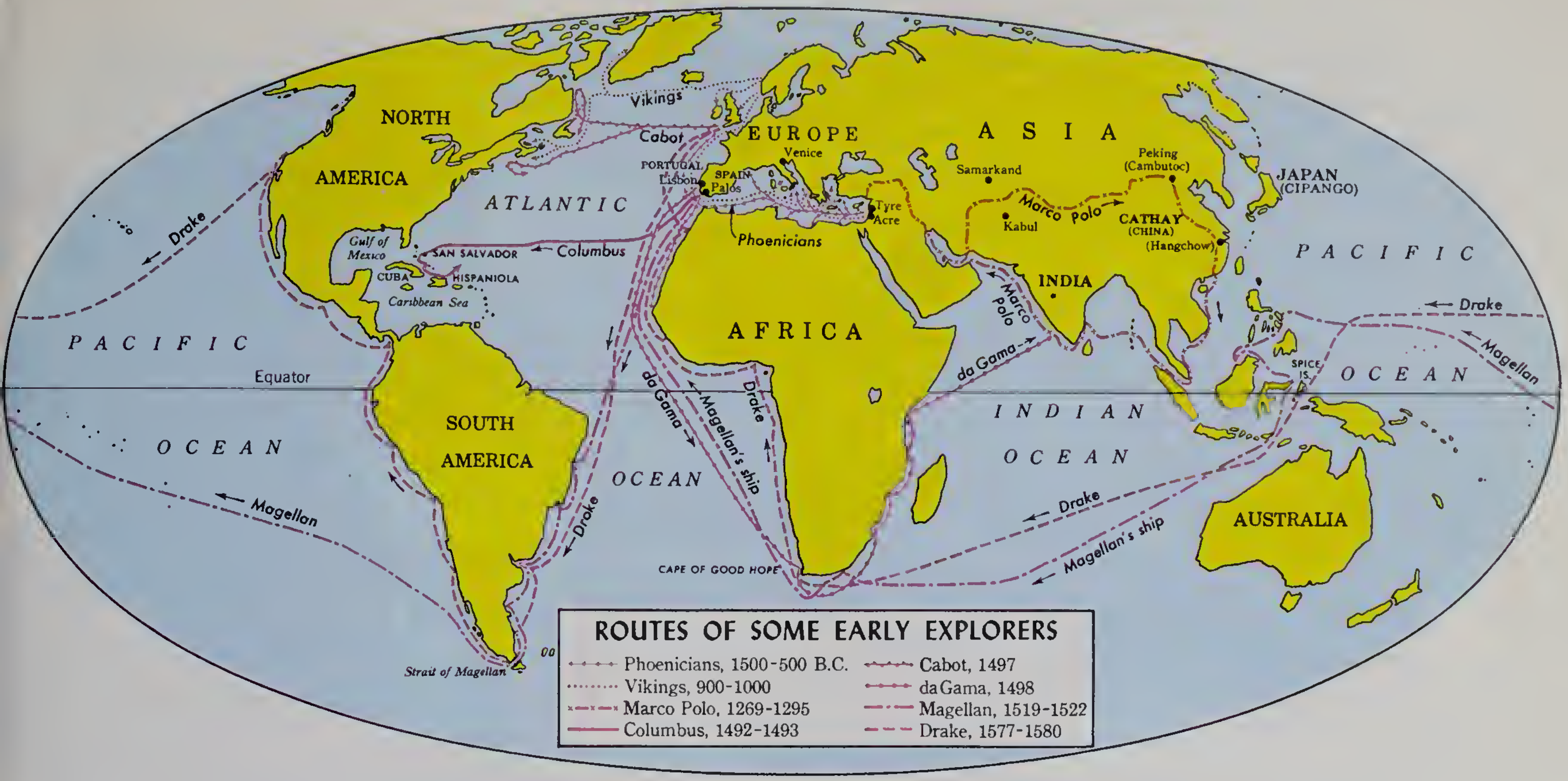
Just as living standards vary, there are also differences in the governments under which people live. The citizens of some lands, including our own, have won the right to govern themselves. They enjoy the privilege of electing lawmakers and other officials. If accused of a crime, they have the right to a fair trial. They have freedom of religion, or the right to worship as they please.

There are other people who are not so fortunate. They live under leaders who rule as dictators. The dictators do not permit the people to take part in running the government. The dictators also ban other freedoms. The world has seen many of these dictators, in the past and present.

Thus we see that all men need to live in groups, but they meet this need in different ways. Some peoples make better use of the advances in civilization than others do.

Do you know—

1. What did early men gain by living and working together in groups?
2. Where were the four "cradles of civilization" located?
3. Why were these valleys favorable places for the growth of civilization?
4. Where did democracy first develop? How was it carried out?
5. What is representative government?



The map shows some of the voyages of the early explorers. These men searched for new lands as well as for new routes to known lands. Which explorer contributed most to man's knowledge?

3. THE QUEST FOR THE UNKNOWN

Man has many needs. We have considered his physical and his social needs. But after satisfying these, he longs for something more. He has a great desire to learn about the planet on which he lives and the universe beyond.

Man's search for knowledge leads him to explore and to experiment. His need to understand the universe and the purpose of his own life on earth moves him to believe in a higher power. His urge to explore, his scientific curiosity, and his religious faith are all part of his quest or search for the unknown. As he seeks answers to his questions, he is satisfying a third great need in his life. Men who lived thousands of years ago tried to meet this need, and so do men today.

EARLY EXPLORERS

We do not know who the first explorer was. Perhaps he lived on the side of a mountain. One day we can imagine that he climbed to the top of the mountain. From there he could look across a valley to other mountains far away. This was an exciting experience. So on another day we can imagine him leaving his mountain to explore the land that he had seen in the distance.

Perhaps the first explorer lived near a river. He may have wondered where the water came from and where it went after moving past him. At last he decided to find out, and he started to explore. He may have gone on several journeys before he reached either the source or the mouth of the river.

As time went on, more men began to explore, going farther and farther from their homes. They crossed mountains, explored shores, sailed oceans, and sought new lands.

The Phoenicians

Among the first people to sail far from home were the men of ancient Phoenicia. They lived at the eastern end of the Mediterranean Sea, about where the tiny country of Lebanon now lies. As long as 3500 years ago the Phoenicians were building ships and sailing the seas.

On their earliest voyages they rowed boats with oars. Then they built larger vessels equipped with sails. The sun guided them by day and the North Star by night. They were the first sailors who had the skill and daring to go on voyages at night.

The Phoenicians journeyed throughout the Mediterranean, Black, and Aegean seas. After finding the narrow passage between Europe and Africa at the western end of the Mediterranean, they sailed into the Atlantic Ocean. Their voyages took them as far north as Britain.

On their journeys the Phoenicians, who were skilled craftsmen, carried articles of gold and silver, glass, and fine cloth. They traded these products for furs, wool, silk, and metals. As they explored and traded, the seafaring Phoenicians planted colonies in new lands, especially along the Mediterranean coast of Africa. See the map on page 31 for the routes of the Phoenicians.

The vikings

Another hardy lot of early sea rovers were the Northmen, or vikings, who lived in the region now known as Scandinavia. They rowed and sailed to Britain and Ireland, to places along the coasts of Europe, and south into the Mediterranean Sea. Traveling up rivers, they journeyed deep into the heart of Europe.

To the west of Europe, the bold Northmen discovered Iceland and Greenland. On one voyage, about the year 1000, a group of Northmen reached the coast of North America. Their leader was Leif Ericson. They were the first white men to see the New World.

The Northmen went exploring at first for adventure. Later they became traders and settlers, starting colonies in Italy, Sicily, Britain, Ireland, Iceland, and Greenland.

Marco Polo

In the year 1265 three traders started on a journey from Venice to the Far East. The travelers were the Polo brothers and sixteen-year-old Marco Polo. They left their home in Italy and crossed great bodies of water, deserts, and mountains. Finally, they reached the distant land of China.

They were welcomed by Kublai Khan, the ruler of China. He entertained the visitors royally. He found Marco likable and intelligent and sent him to do business for him throughout his empire.

After nearly twenty years the travelers returned to Venice. They told stories of their adventures and displayed a fortune in jewels. Listeners could hardly believe the amazing tales about China. But their doubts disappeared when they saw the glittering sapphires, rubies, and emeralds.

Marco Polo described his adventures in the Far East in a book. Many people read the book and learned of the daring journey made by Marco Polo, his father, and his uncle. Their adventures aroused widespread interest in unknown lands. Other men, hearing of Marco's travels, began to explore also.

One of the earliest travelers to reach the Far East was Marco Polo. Here Marco Polo watches the boats on the Grand Canal in China. From his travels, Europeans learned much about China.

Christopher Columbus

After the days of Marco Polo, men began to carry on a large trade between Europe and Asia. To satisfy the eager buyers, bands of traders made the long journey to and from Asia. Part of the trip had to be made by land through a great desert.

The traders wished that they could go all the way by sea. Explorers began to search for an all-water route to the Far East.

Among the explorers was Christopher Columbus. He had read Marco Polo's book and was excited by it. He believed that he could reach Asia by sailing west from Europe. As you know, he discovered America in 1492. This voyage and his later ones gave Europe knowledge of the New World.

Vasco da Gama

The news of Columbus's voyages created still more interest in exploring. Men continued to look for new lands and new routes. In 1498 Vasco da Gama, a Portuguese, sailed around Africa to India. He was the first man to reach India by an all-water route. Da Gama and others added much to men's knowledge of the geography of the world.

MODERN EXPLORERS

Exploring still goes on today because men want to know more about the planet on which they live. They are eager to solve mysteries about high mountains, ocean depths, jungles, and faraway lands of ice and snow. They dream of space ships to the moon.

NASA

Astronaut John Glenn, Jr., awaits a final check before beginning his historic flight.

Admiral Byrd

A great explorer of recent times was Admiral Richard E. Byrd. He won fame for his expeditions in Antarctica, the ice-covered continent around the South Pole.

An experience Admiral Byrd had while planning one of his expeditions reveals much about the spirit of explorers. The new expedition was to begin in November, 1955. Ships, airplanes, and men would be sent to the polar region.

Among the men Admiral Byrd needed were expert builders to construct camps for the expedition. Byrd called for volunteers from the United States Navy, saying that he wanted men willing to spend many months in the cold and lonely Antarctic.

Two hundred men were needed, but more than 10,000 men answered Byrd's call. This incident proved that many people today have the courage required by the true explorer.

Auguste Piccard

Auguste Piccard, a Swiss, wanted to find out about two oceans. One was the ocean of water that washes our shores. The other was the ocean of air surrounding the earth.

To explore the air, he prepared for a flight in 1932. First, he built a snug cabin, called a gondola. Then he attached the gondola to a huge balloon. The balloon, filled with gas, carried him in the gondola to an altitude of 53,152 feet. Piccard was the first to enter the *stratosphere,* or upper region of the atmosphere, and to make a beginning in solving the mysteries of outer space.

Later Piccard built a new kind of craft, a small submarine called a *bathyscaphe.* The bathyscaphe was shaped like a cigar with a sphere under it. In 1960 Piccard's son Jacques and a United States Navy officer boarded the bathyscaphe and went down almost seven miles to the deepest spot in the ocean. It is called the Marianas Trench and it is near Guam. They found it was farther to the ocean bottom than to the top of the world's highest mountain.

Travelers in outer space

Scientists now assure us that inhabitants of the earth will soon be able to reach the moon. The bold airmen who make the journey will travel in rocket ships that blaze through space at incredible speeds. After a flight of more than 220,000 miles, they will reach the barren plains and deep craters that cover the surface of the moon.

Exciting test flights, beginning in 1957, showed how the journey might begin. The

Soviet Union and the United States made the tests by launching small space ships, called *satellites.* With rockets flashing, the satellites shot hundreds of miles upward. Then, like the man-made moons which they are, they began to revolve around the earth.

In 1961 the Soviet Union and the United States both took further steps into space. In April, and again in August, the Soviet Union reported that a Russian had orbited the earth. The United States sent a man on a sub-orbital flight in May. Another such flight by an American followed in July.

In February, 1962, the United States scored an important victory in the space race when Astronaut John Glenn, Jr., successfully circled the earth three times in a space capsule. In May Astronaut Scott Carpenter also orbited the earth three times. During their flights both men took the controls, proving that man can fly a capsule in space.

All of these journeys were short, but they proved that man will be able to use space ships in the future as he now uses airplanes.

SCIENCE AND INVENTION

When we think of a scientist, we picture a man in a white coat working in a laboratory. We see him using a microscope, handling test tubes, and making careful notes. If one test fails, he tries another. In the end he may make an important discovery.

We imagine an inventor to be a man busy in a shop full of tools. He is trying out an idea for a new machine by building a model. When one model fails, he builds another.

All discoverers, scientists, and inventors have the same purpose. They are looking ing for ways to use the resources of the world.

General Dynamics Corporation

Rising from its launch pad on the right is the Atlas intercontinental ballistic missile.

One of the most important of early man's inventions was the use of the wheel. He could then move goods quickly and easily from one place to another. The wheel made his work much simpler.

Great discoveries of the past

Early men did not quickly invent weapons and tools or discover the secrets of nature. The struggle to make life easier and more comfortable was long and hard.

Fire was one of the most important discoveries made by early men. Perhaps they first saw fire when a dead tree blazed after being struck by lightning. The sight made them afraid, but it also aroused their curiosity. What was fire? Could they use it?

In time, they observed that fire would burn wood, leaves, and grass, but not stones. They found that fire would cook meat and heat water. Fire would keep them warm on cold days, but it could also injure them.

Each of these discoveries came about because men observed fire. They saw how fire could either help them or harm them. They thus learned to master fire.

The wheel was another discovery which was a long time in the making. Did someone get the idea from seeing a rolling log? Was the first wheel simply a log placed under a heavy load? Did man then discover that a short log would roll more easily than a long one? Were the logs shortened until they were the shape and size of wheels?

We wish we knew the answers. They would tell us how men tried first one idea and then another until at last they put wheels on carts. We can imagine what a great help the carts were. They enabled men to move heavy loads across land.

When man discovered how seeds grow, he possessed a valuable secret of nature. But he still had much to learn about plants. He had to discover that seeds should not be scattered on top of the ground but should be covered with soil. Beneath a layer of dirt, the seeds would not be washed or blown away. They would not attract hungry birds. Covered seeds would sprout and grow better than unprotected seeds.

After gaining this knowledge, farmers tried new ways of planting. They took sharp sticks and poked holes in the ground. Then they dropped seeds into the holes and covered them with dirt. Then they found that it was easier to drag a pointed stick across the ground. After breaking open the soil, they dropped in the seeds, in rows, and covered them. Such a stick was the first plow.

As time went on, man's efforts to improve his way of life produced useful discoveries in many lands. People living in regions which were far apart gave the world valuable inventions and added to man's knowledge of the universe. As discoveries were shared, life became better for more people.

Progress in modern times

The United States government once asked a question of scientists, engineers, and other leaders. The question was: "What were the greatest inventions during the first one hundred and fifty years of our country's history?"

There were many replies. Among the great inventions mentioned were the cotton gin, steamboat, reaper, telegraph, sewing machine, typewriter, telephone, phonograph, linotype, movie projector, and airplane.

As we look around us, we realize there are many other important modern inventions. We have them because people of our country and of other lands have searched for new ideas in laboratories and workshops.

The automobile, for example, is the result of the work of many persons. Italians and Germans invented the gasoline engine. Charles Goodyear of the United States discovered the process of treating rubber so that it could be made into tires. Men in England and the United States experimented until they knew how to make steel.

An Englishman and Lee De Forest, of the United States, invented tubes which make radio and television possible. A Frenchman invented the material called rayon. Nylon was first produced in the United States.

The first successful steam locomotive was built in England. But the diesel engines which pull many trains today are named after their inventor—Rudolf Diesel of Germany.

Dr. Jonas Salk and other American scientists were the first to find a *vaccine* to prevent polio. A vaccine is a substance which is injected into a person to prevent a disease. Since Salk's discovery, other drugs which prevent polio have been found.

Atomic energy is also the product of many minds. On the roll of great atomic scientists are the names of people from the United States, Italy, Germany, England, and others.

All of these things—and many more—came from the world-wide search for ideas. A man who saw the importance of this search was Alfred Nobel, a Swedish scientist. He gave part of his fortune to award prizes for outstanding discoveries. The first prizes were given in 1901. Since then the winners have come from more than twenty nations.

MAN'S BELIEF IN A HIGHER POWER

Early men saw and felt the strong forces of nature. The sun rose to give light and disappeared to leave them in darkness. On clear nights they watched distant stars in the sky and a moon that changed in shape and location.

There were pleasant, sunny days and other days when clouds formed and rains fell. Storms brought howling winds, lightning, and booming thunder. Sometimes the heavens sent down snow, hail, or sleet.

As the seasons changed, men saw the growth in plants and trees, animals and human beings. Children became youths and then adults. Life began, and life came to an end.

Early men could not understand or explain these happenings. But they saw that some great force was at work to produce and regulate the wonders of nature. They sensed the presence of a higher power that guided their lives. Many thousands of years were to pass before men called that higher power by the name of God.

Early religious ceremonies

Early men left no written records to tell us about their religious beliefs. We cannot be sure when or how they began to worship. But we know there were times when they held special ceremonies which were part of their religion.

One of these times was when they buried their dead. The discoveries of archaeologists reveal that ancient people were careful about preparing a resting place for the dead. Remains of tombs and burial grounds show that men treated death solemnly. The Egyptians believed in a life after death, as their pyramids and temples show.

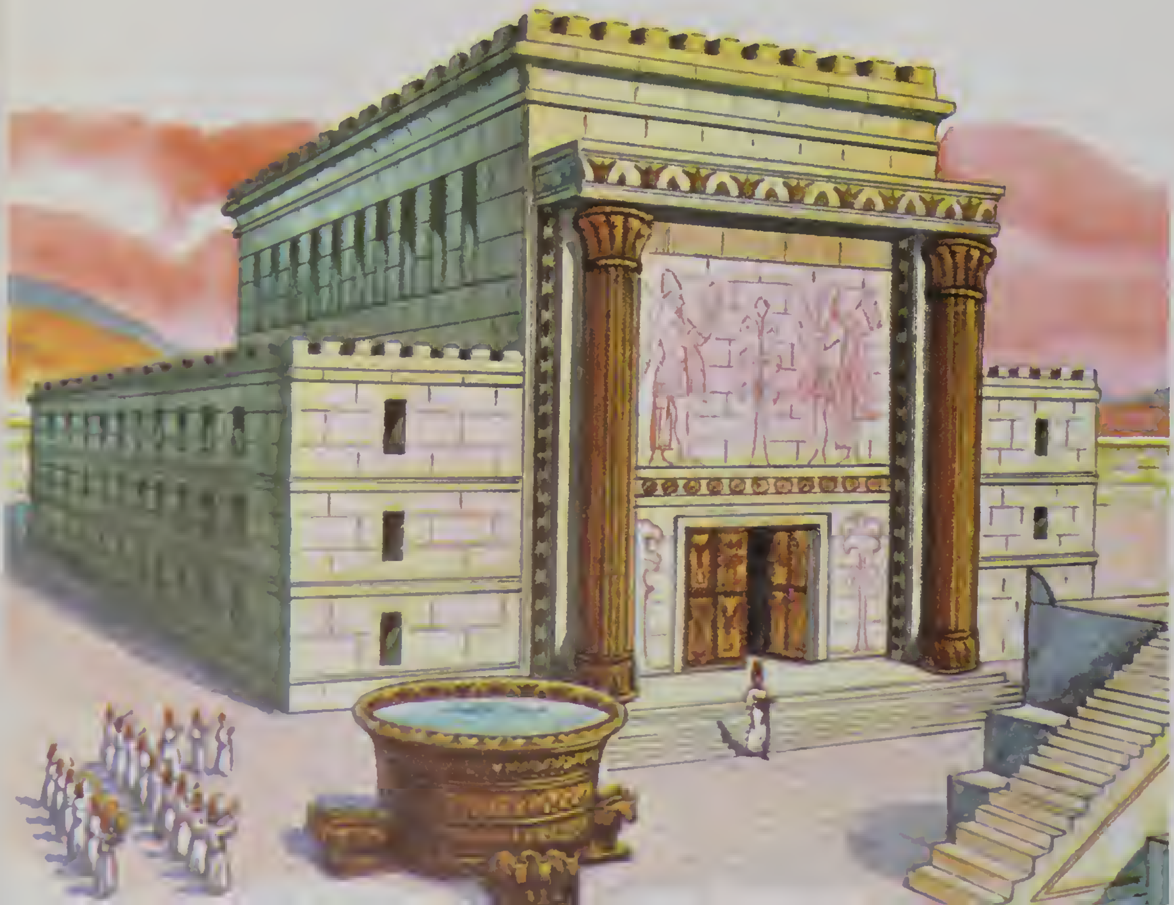
Men may have been showing their religious feelings when they arranged groups of stones according to a definite plan. One such group of stones is still standing at Stonehenge in southern England.

If you could look down on Stonehenge from an airplane, you would see that it appears to be a giant wheel lying on the ground. The rim of the wheel is a bank of earth with a trench along the inside edge. Forming the hub, or center, of the wheel are two circles of stones. Many of the stones are tall pillars pointing toward the sky.

No one knows who built Stonehenge. It was a burial place, but it may also have been used as a place of worship. Scientists have proof that Stonehenge was constructed more than 3800 years ago.

Worship of many gods

Did early men worship many gods? We believe they did, because this kind of religion spread through lands around the Mediterranean Sea and even farther away.



With the help of Hiram of Tyre and his workmen, Solomon built this temple in Jerusalem. Shown at the right is a stairway which leads to an altar.

One of the world's largest churches is St. Peter's in Rome. Michelangelo, the famous Italian artist and sculptor, designed the dome of this old church.

Edwards from FPG

Egypt, for example, had hundreds of gods. There were special gods for each district, and gods who were honored throughout the kingdom. Some of the gods represented the forces of nature. The people worshiped a sun god, who they believed helped crops to grow, and a Nile River god, who furnished water for their crops. The Egyptians built many temples to honor their gods.

Babylonia was another land with temples built in honor of many gods. The people of Babylonia worshiped a sun god, a moon god, a weather god, and a god of the harvest.

Zeus was the chief among many gods and goddesses in Greece. Beneath him in importance were Apollo, the sun god, and Demeter, the earth goddess, who was honored at harvest time. The Greeks worshiped their gods and goddesses as powerful beings who lived on the top of Mount Olympus.

The belief in many gods—especially gods of nature—lasted for hundreds of years. It became the religion of people living in lands which stretched from northern Europe to the heart of Africa. To hold ceremonies in honor of their gods, the people built temples and other places of worship.

The belief in one God

At the eastern end of the Mediterranean Sea was a tiny country once called Canaan. It lay between the larger lands of Egypt and Babylonia. The people who settled in Canaan, many hundreds of years ago, were known as Hebrews. The region was later called Palestine. Today it is known as Israel.

The Hebrews were the first people in history who believed in one God. His name, in their language, was Yahweh, or Jehovah. They worshiped Him as the creator of all life and the ruler of the universe. Their religion required them to obey many rules. Among these were the Ten Commandments.

The Old Testament tells the story of the Hebrew belief in one God. It also gives the history of their early days in Canaan.

Coming of Christianity

Nearly 2000 years ago Jesus was born in Bethlehem, a village in Palestine. He grew up among people who believed in one God. He taught them that God wanted men to live in peace and to love one another. In one of his sermons he spoke the beautiful words of the Golden Rule.

Ewing Galloway

The Dome of the Rock, in Jerusalem, is built on the spot where Solomon's temple was.

The lessons that Jesus taught are recorded in the New Testament. As the followers of Jesus grew in numbers and formed groups, they called themselves Christians. Their religion became known as Christianity.

Appearance of other religions

About 500 years before the time of Jesus, a young man named Gautama became a religious leader in India. The religion he founded became known as Buddhism. It spread from India throughout the Far East.

Buddhism was about 1000 years old and Christianity had been spreading for 500 years when a new religion appeared in Arabia. Its founder was Mohammed.

Mohammed was born in Mecca. On journeys to neighboring lands, he learned that Jews and Christians worshiped one God. This seemed good to Mohammed. He taught his own people that they should give up their belief in many gods and worship one God. Today the followers of Mohammed, chiefly Arabs, number in the millions. They live in many parts of Asia and Africa.

Asia is the home of still other beliefs which have many followers. Two of the largest groups are the Confucianists of China and the Hindus of India. The believers in Confucianism follow the teachings of a wise man named Confucius, who lived some 2500 years ago. Hindus worship a god called Brahma.

Effects of religious faiths

History tells us that people, deeply moved by their religion, have made unusual efforts to show their faith.

Arabs felt it was their duty to conquer countries and bring about a wider belief in the teachings of Mohammed. In the lands they entered, the Arabs built splendid temples of worship.

Hebrews, who called their religion Judaism, settled in many lands around the world. Down through history they have remained faithful to Judaism, despite harsh treatment heaped upon them because of their religion. Wherever they have lived, the Jews have built synagogues and worshiped in them.

The early Christians suffered penalties, too, but they continued to live by their faith and to seek new followers. In the lands where Christianity has been planted, men have built great cathedrals and churches for their services of worship.

Religious teachings of honesty, kindness, justice, and charity have helped people to lead better lives. Such teachings have inspired people to be generous and fair toward their fellow men, to be of service, and to try to build a better world.

This unit has told the story of man's needs —from earliest times to the present. The story reminds us again and again that all people in all times and all places are alike in these three ways:

Wherever they live in the world, people need food, clothing, and shelter, and they work to satisfy these needs.

People everywhere find advantages in living in groups or communities.

People have always sought to solve the secrets of nature and to understand the power that controls the universe.

You will read more about these needs of mankind in the units that follow. You will also learn more about the differences among people. These differences make the world a more interesting place in which to live. Our similar needs make us realize that we are all neighbors in today's world.

Do you know—

1. Who were some famous explorers in the past? In modern times?
2. What are some important discoveries that have changed man's life?
3. What people first believed in one God?

Words and Terms to Remember

stratosphere
private property
direct democracy
Mongolians
Caucasians
bathyscaphe
cuneiform
hieroglyphics
vaccine
representative government
cradle of civilization

A Matching Game

The phrases below explain the words or terms listed above. Number a paper from 1 through 11. After each number write the word or term which matches the definition.

1. **The wedge-shaped writing used by Sumerians and other ancient peoples**
2. **A government in which all citizens meet together to vote**
3. **A cigar-shaped submarine used for exploring great ocean depths**
4. **A community in a valley where early men developed civilized ways**
5. **People with light skins who belong to one of the three large divisions of mankind**
6. **A system of government in which the citizens choose certain individuals to speak for them and to make laws**
7. **Land or other possessions that belong to one person or group**
8. **People with yellow or reddish-brown skins who belong to one of the three large divisions of mankind**
9. **The upper region of the atmosphere**
10. **A method of writing using pictures or signs instead of an alphabet**
11. **A substance introduced into the body for the purpose of preventing a specific disease**

When we have a map in front of us, we can imagine that we have before us a picture of the earth, or a part of it, taken from an airplane or a satellite. There are many kinds of maps, each of which represents all or part of the world in a different way. Some maps emphasize natural features such as hills, mountains, lakes, and rivers. Some emphasize such man-made features as boundaries between countries, capitals, and large cities. Other maps combine physical and man-made features. Still other maps specialize in presenting information on a single important topic, such as population, rainfall, or vegetation.

Physical maps

A physical map emphasizes such natural features of the earth as continents, oceans, rivers, seas, islands, and lakes. On a physical map color is often used to show the different land surfaces. By land surfaces we mean plains (or level regions), plateaus (or high tablelands), hills, and mountains. On the physical maps in this book green is used for plains, yellow is used for plateaus, and light brown for hills. Mountains are shown in deep brown. Each physical map in this book has a key which shows what the colors mean.

Political maps

The chief purpose of a political map is to show man-made features such as nations and their boundaries, cities, capitals, canals, and dams. The global maps on pages 44 and 45 are political maps. On these maps colors are used to portray countries. The colors help us to see the sizes and shapes of the different countries and to locate them easily.

Special-purpose maps

A map which summarizes and presents information of a specific kind is called a special-purpose map. For example, the map on page 52 which shows the population of the various regions of the world by means of different colors is a special-purpose map. So, too, is the map on page 53 which shows the amount of rainfall in different parts of the world by means of color. This book has many kinds of special-purpose maps which will help you learn important facts about the earth.

Map scales

The number of details a map can show depends upon its scale. By scale we mean the size of the map and the actual area of land that it represents. As you know, a camera shot of a person taken at close range will give a recognizable likeness of his features. If taken from a few yards away, the picture will show the person's figure more clearly than his face, but it will show some parts of the room or of the landscape as well.

So it is with maps. A map drawn on a very large scale could show the plan of your schoolroom, the arrangement of the desks, the location of the doors, windows, and so on. A map on somewhat smaller scale could picture your whole community, its streets, the river (if it is built on a river), and perhaps a part of the countryside as well. A map on a still smaller scale might show your community in relation to near-by towns or cities.

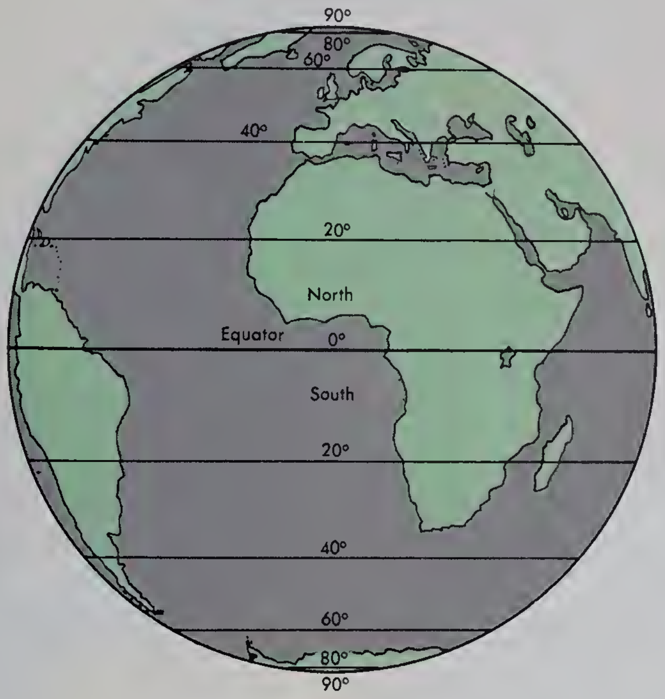
If a map shows a whole country—or the whole world—the scale must be very small. On such maps each city is represented by a tiny dot, the map sign for a city. A river is shown by a little crooked line—the map sign for a river.

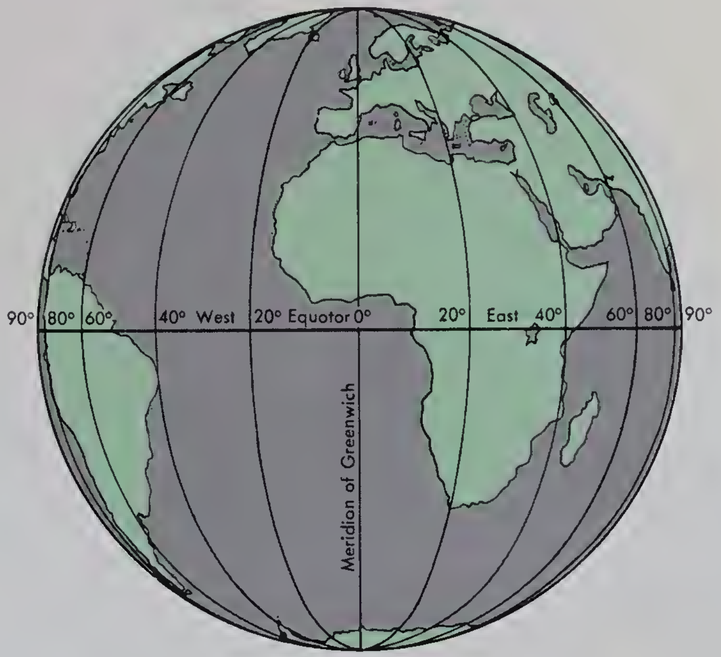
Turn the page and look at the globes of the Western and Eastern hemispheres on pages 44 and 45. If you study these maps and the kind of information they show, you will see why together they form a political map of the world.

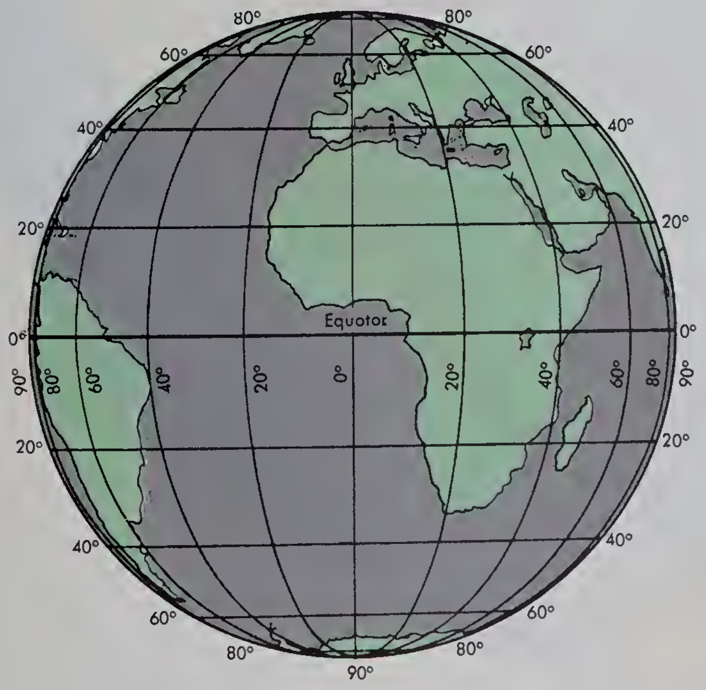
Latitude and longitude

On the surface of the earth we locate places by using imaginary guide lines, called lines of latitude and lines of longitude. Lines of latitude run east and west. Lines of longitude, called meridians, run north and south. Both latitude and longitude are numbered in degrees.

Latitude is measured from the equator, which is a line around the globe halfway between the poles. The equator is zero degrees and is numbered 0°. The zero meridian runs through Greenwich, England. It is the prime (or first) meridian. Longitude is measured east and west of this meridian.





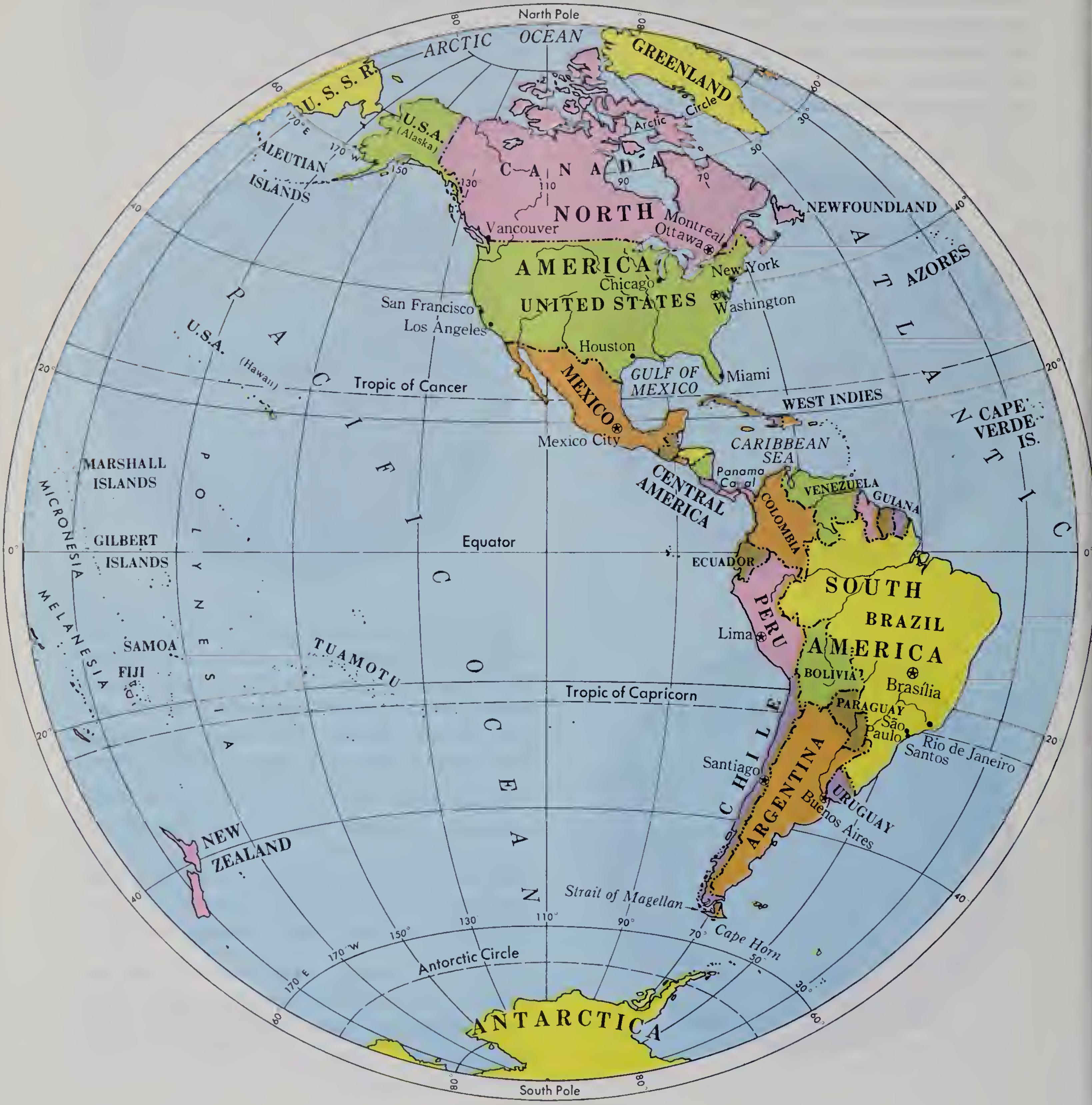


The map at the top left shows the earth with latitude lines numbered at each twenty degrees. When you know that one degree equals about seventy miles, you can measure how far one place is from another. The length of a degree varies because the earth is not a perfect sphere.

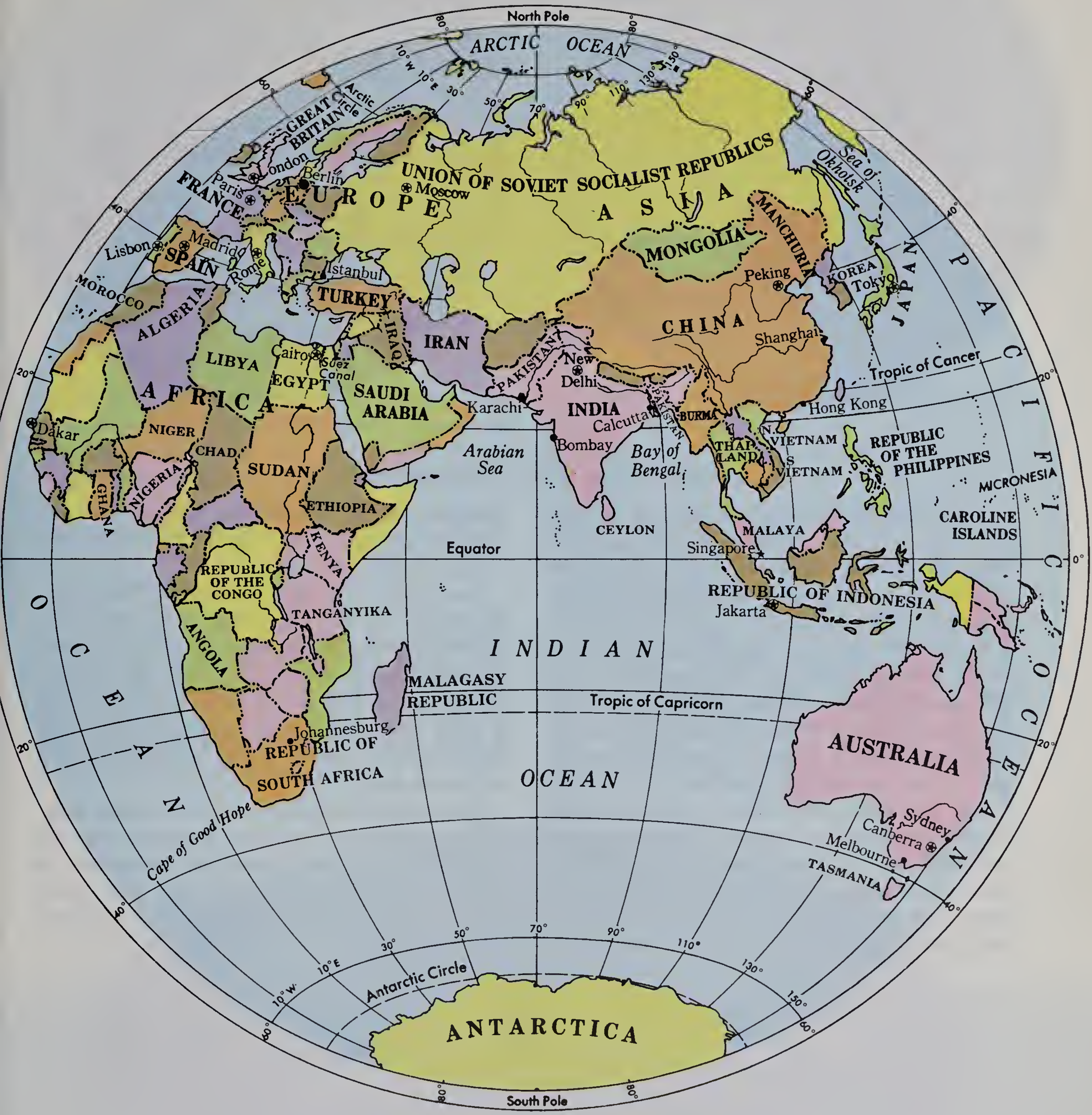
At top right we see the meridians of longitude with the prime meridian (numbered 0°), which runs through Greenwich, England. Because the earth is a sphere, the meridians meet at the poles and are farthest apart at the equator. What meridians pass through Africa?

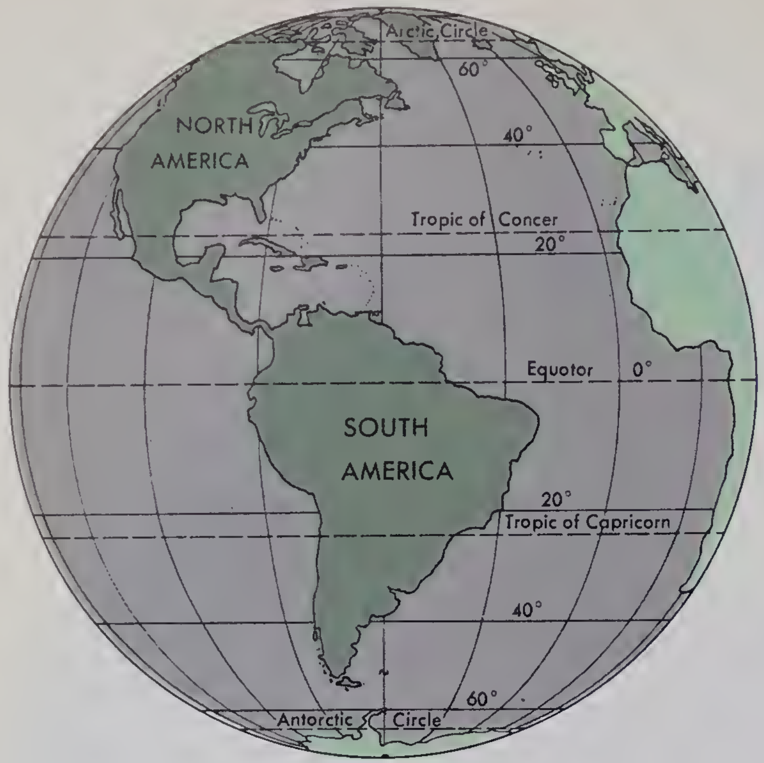
The map at the left shows a globe with both latitude and longitude lines on it. What is the highest latitude? Find the meridians that are numbered 90°. Find a place that is zero latitude and zero longitude.

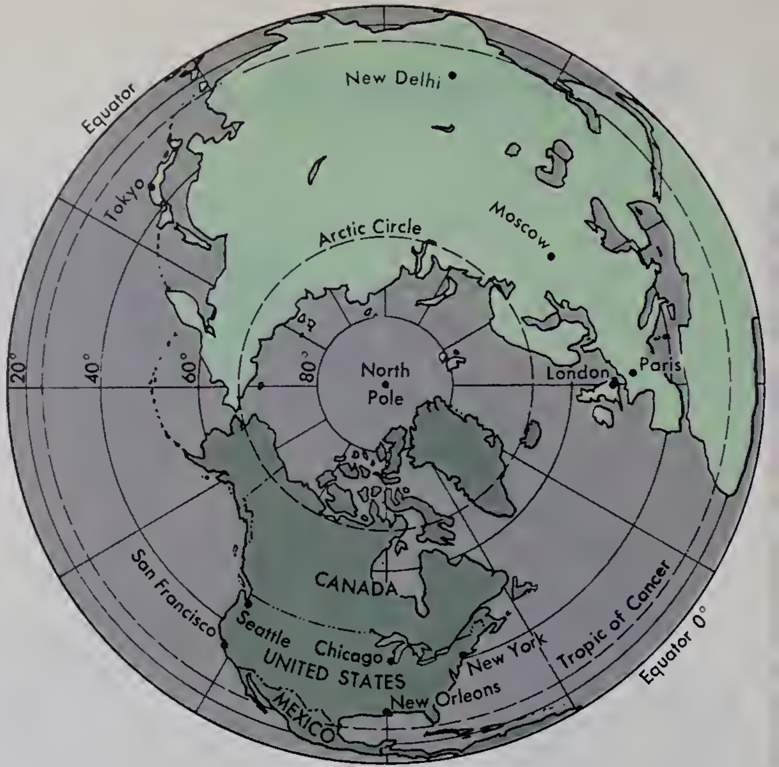
POLITICAL MAP



OF THE WORLD—1962







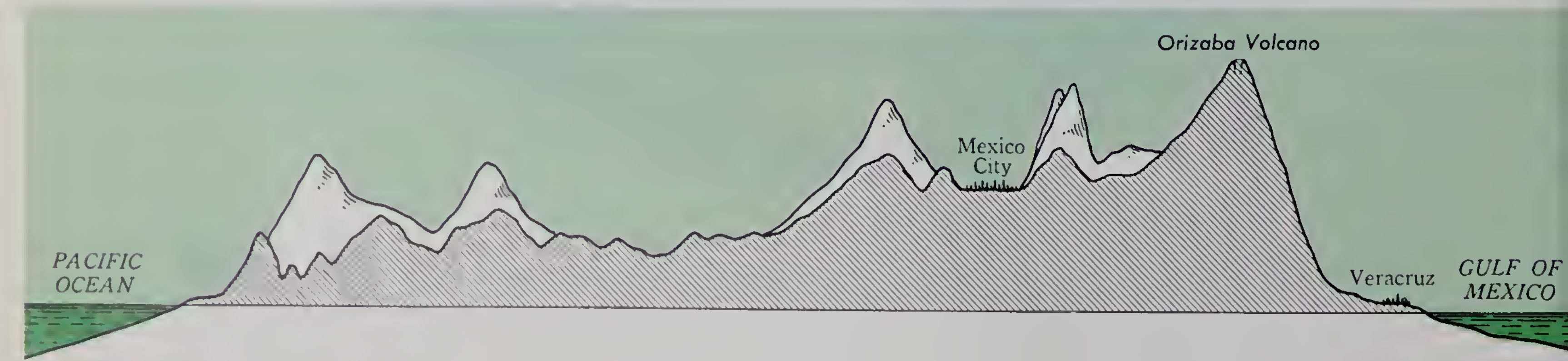
KINDS OF MAP PROJECTIONS

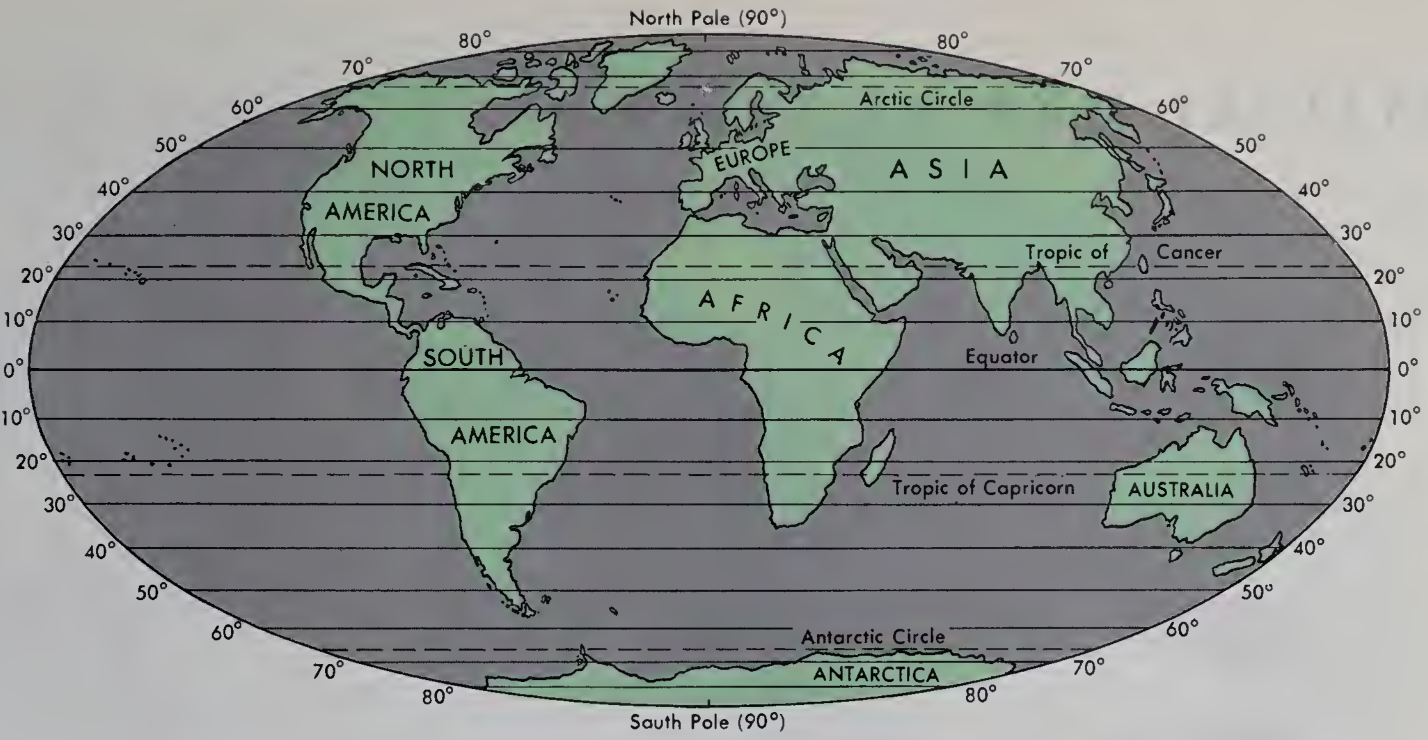
If we want to see what the earth is like, we must use a globe. On a globe the size and shape of the land and water areas are correct in relation to each other. Because the earth is round, it is impossible to show it correctly on a flat surface. But we need flat maps to use in travel and in books like this geography. For this reason, different kinds of maps, or projections, have been developed. Each kind of projection is useful. But each in some way does not give a true, or accurate, picture of the earth.

The map above, at the left, pictures the globe turned to show the Western Hemisphere. A map like this is a good kind of projection because it is much like a globe. Note that it shows the equator as a line halfway between the North and the South poles. Because it is centered on the equator, the regions near the equator are accurately shown. But the polar areas are less accurate.

Now look at the map at the right. This map is centered on the North Pole. For this reason the regions near the pole are accurately shown. But the regions of the map near the equator (at its outer edge) are less accurate. With such a polar map, an airplane pilot can easily find his directions because north is always toward the North Pole.

The projection below is a cross-section map. It shows what we would see if North America could be cut in two across the mountains of Mexico. It shows how the land rises from narrow coastal plains to form hills, plateaus, and mountains.



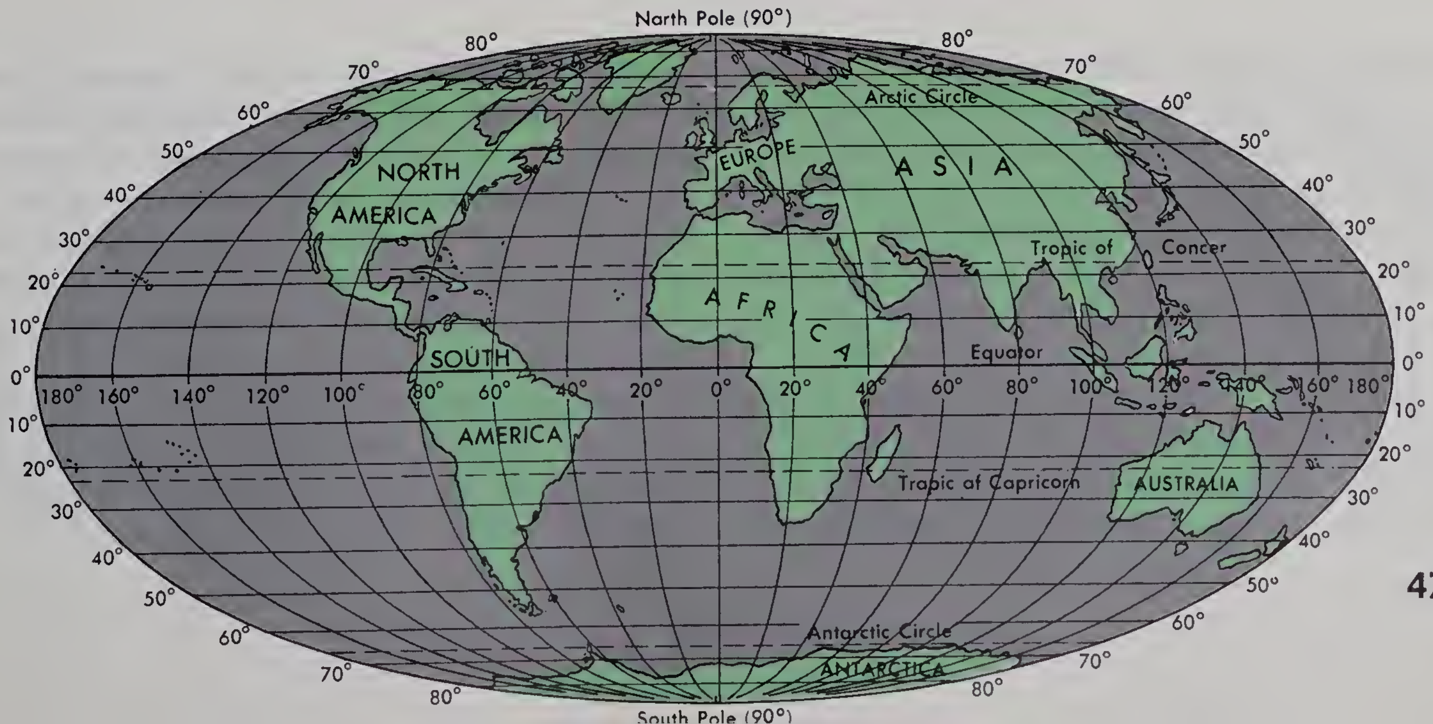


The first map above is a globe that has been widened to show all of the earth's continents and oceans. It shows the whole world on one map. From north to south it is centered on the equator. From east to west it is centered on the continents of Europe and Africa. These continents, especially the areas near the equator, are shown accurately here.

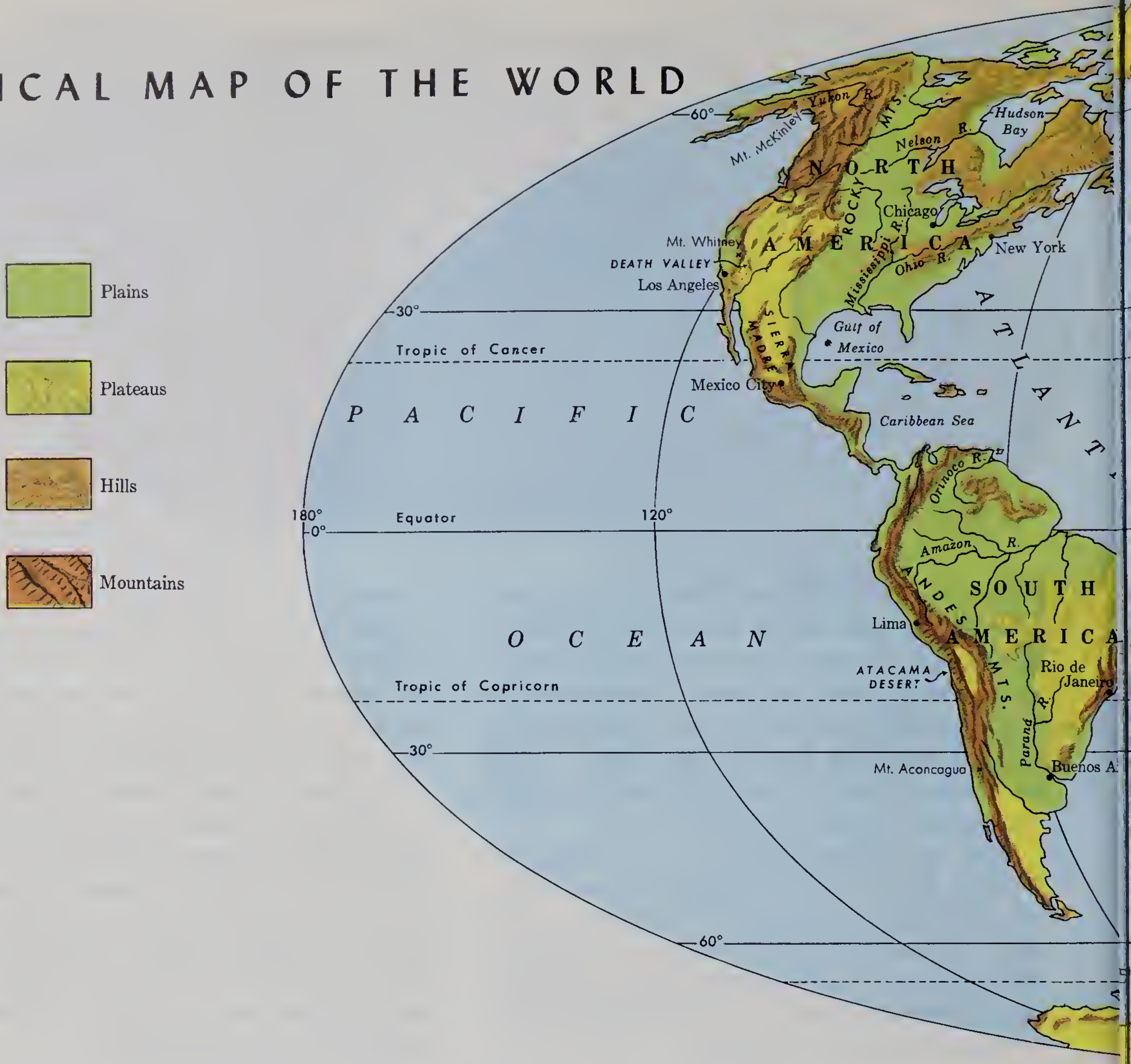
The east-and-west lines on this map are latitude lines. Latitude means distance north or south of the equator. Because these guide lines are drawn parallel to—that is, at an even distance from—the equator they are called parallels of latitude. Parallels show how far a place is north or south of the equator.

Parallels have numbers, called degrees. The equator is zero degrees, or zero latitude. The parallels on this map are shown at 10 degrees, 20 degrees, 30 degrees, and so on, until 80 degrees is reached. The latitude of the North Pole and of the South Pole is 90 degrees.

The map at the bottom of this page has north-and-south guide lines also. These lines, called meridians, meet at the poles. They are numbered to help us measure distance east and west on the earth. The numbering starts from the first, or prime, meridian. It runs through Greenwich, England. Points east of this meridian are in east longitude. Points west of it are in west longitude.



PHYSICAL MAP OF THE WORLD



The map above shows the whole world. Because the scale must be small, the map has room for only very important features. It shows continents, large bodies of water, high mountains, long rivers, big islands, and great deserts.

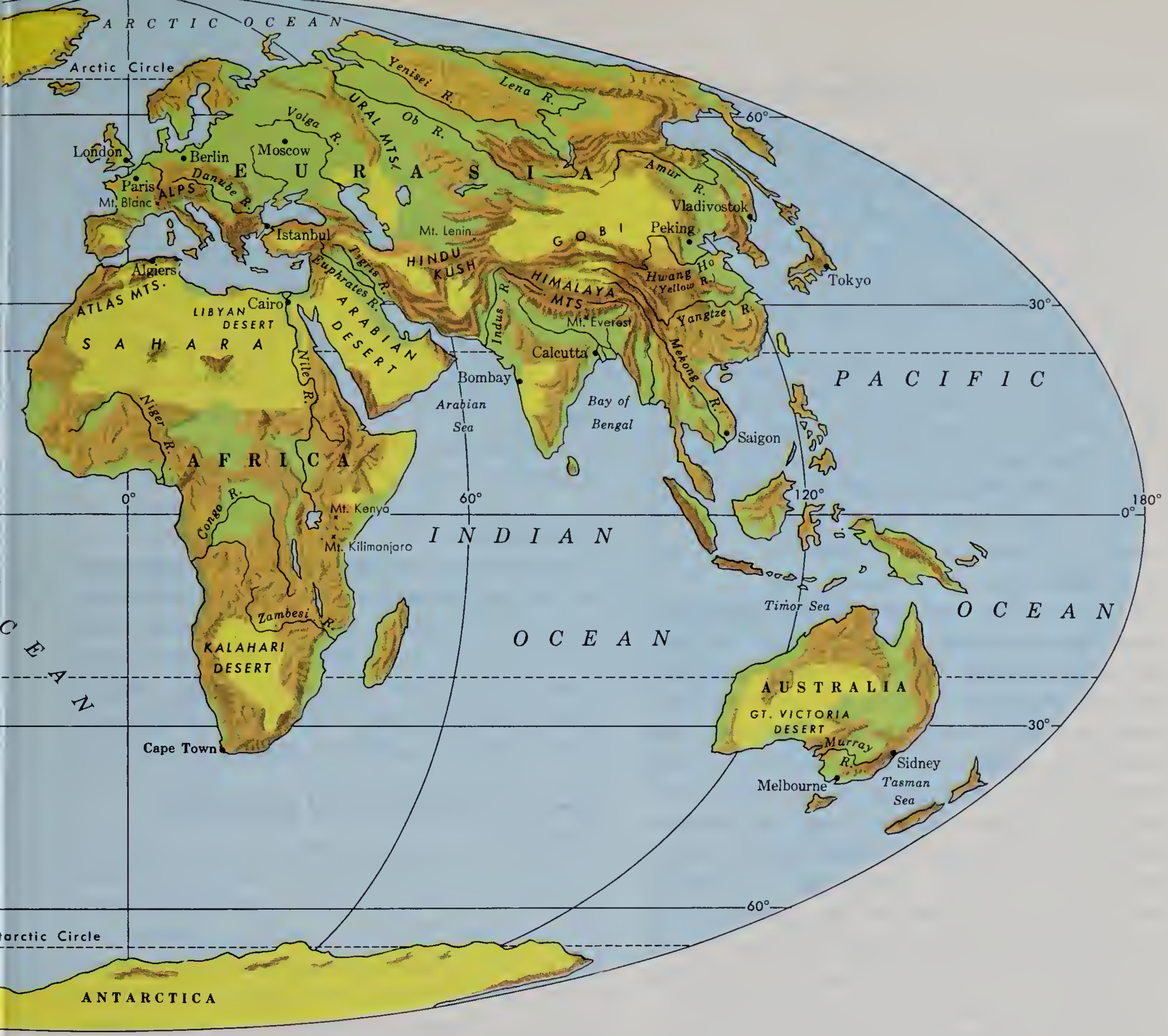
The oceans cover about two thirds of the earth's surface. They surround the great land masses called continents.

Find the equator. Note how much of the land of the world lies north of that line.

The continents of North and South America are alike in many ways. High mountains extend through western North America from Alaska to the tip of South America. Use the map key to see how high mountains are shown. Use the key also to find the plateau regions.

East of the Rockies, in North America, is a great plains region. In South America also a large plains region lies east of the Andes. Use the map key to find these regions.

In eastern North America is a great highland, or hilly, region. South America also has highland regions in the east. Use the key to find these highlands on the map.



On the map above, find Eurasia (which is made up of Europe and Asia). Europe and Asia are often called separate continents, but the map shows that together they form one land mass. Europe is the part of Eurasia which lies west of the Ural Mountains. Asia is the part east and south of the Urals.

Most of Europe is a great plain. In the north are hills. In central and southern Europe are high mountains called the Alps.

Asia has several large mountain ranges. In fact, the world's highest mountains, the Himalayas, are in Asia. Mount Everest, the highest peak, rises 29,002 feet above sea level.

Africa is a continent made up chiefly of highland and plateau regions, as the map shows. The Nile River, which flows across half of the continent, is one of the world's longest rivers. In what direction does it flow?

South of the Antarctic Circle is the ice-covered continent of Antarctica. It is one of the regions of the world about which little is known. It is today the world's greatest frontier for explorers and scientists.

The world has many different kinds of climate. The kind of weather a place has year after year is called its climate. Climate means how much rain a place has, how hot or cold it is, and how long or short its summers and winters are. It also means the amount of rain a place receives.

Places with a similar climate are alike in many ways. The same kind of crops can be grown in them. Lands which have a favorable climate—where it is not too hot or too cold—and which have enough rain for crops can support many people. Thus there is a direct relationship between the climate of a place and the number of people who live there.

As we consider the different climates of the world, we are really learning about the sun, and its effect on the land, the sea, and the air. For example, the way in which the sun's rays strike a place determines in large part how warm that place is. This is why the tropics, which always receive the sun's direct rays sometime during the course of the year, have a hot climate and why the polar regions, which never receive the sun's direct rays, are always cold. Again, the length of time the sun shines on a place—that is, the time between sunrise and sunset—also affects its climate. Long hours of sunlight increase the warmth. Long hours of darkness increase the cold.

The polar icecap

In the region near the North Pole the Arctic Ocean is covered with great blocks of ice. Even the island of Greenland is ice covered for the most part. At the South Pole the vast Antarctic continent is also covered with snow and ice. Find these regions on the map of "World Climates," on pages 52–53. In these lands where the sun's direct rays never reach are regions so cold and remote that no people have homes there. Some scientists spend months there studying the polar region.

The tundra

The map of "World Climates," on pages 52–53, shows a region near the North Pole called the "tundra." The tundra, which receives only the slanting rays of the sun, is a frozen swamp for most of the year. In the short summer the topsoil thaws just enough for mosses and some other plants to grow. But the soil beneath is always frozen. The people of the tundra are Eskimos in North America, Lapps in Europe, and other Mongols in Asia.

The taiga

South of the tundra, where the arctic winds are not so cold, is a forest region called the "taiga." Find the taiga on the map on pages 52–53. It receives enough rainfall and warmth from the sun's rays to support great forests of spruce, firs, and pine trees. Few people live in these forests. It is hard to make a living there.

Humid continental and subtropical climates

Moving southward into the middle latitudes, we find the land gradually growing warmer. The middle latitudes, as you know, lie between the Arctic Circle and the Tropic of Cancer and between the Tropic of Capricorn and the Antarctic Circle. The narrow belts which extend from 30 degrees North Latitude to the beginning of the tropics and from 30 degrees South Latitude to the beginning of the tropics are called the subtropics.

Many parts of the temperate and subtropical regions are densely populated. Find the areas called "humid continental" and "humid subtropical" on the map on pages 52–53. "Humid" means "moist." Humid regions receive more rainfall than their plant life needs. In such regions—where there is fertile soil and plenty of sunshine and rain—are the world's great food-producing areas, its chief industries, and its largest cities.

Oceanic climates

Large bodies of water influence climate. This is true because water holds cold or heat longer than land does. Thus the winds that blow over oceans bring coolness or warmth to near-by lands. There are also currents, both cold and warm, which flow through the oceans. These currents cause the winds blowing over them to carry warmth or coolness to the lands which they cross. For this reason, the nearness to oceans causes the temperature of neighboring lands to change less than it does in regions in a similar latitude which are not near water. Such places, which are found on sea coasts and on islands in temperate and tropical regions, are said to have an "oceanic climate." Places with an oceanic climate are less hot in summer and less cold in winter than areas further inland.

Mediterranean climates

People go from all parts of the world to enjoy the pleasant, sunny climate of the shores of the Mediterranean Sea. The winters there are never very cold. Although the rains fall during the winter season, there are long periods of sunshine. The summer heat, on the other hand, is relieved by sea breezes. This "Mediterranean climate," as it is called, is found not only along the Mediterranean Sea but also in central California, Chile, and other parts of the world. See the map on pages 52–53.

Desert climates

If a region receives less rainfall than the plants there need, the climate is dry. When the rainfall is much less than the plants need, the region becomes a desert. The world's greatest desert is the Sahara, which reaches across North Africa for hundreds of miles. These desert lands extend eastward into Arabia, as the map shows. In tropical regions like these the ground is sandy or stony. Rain does not fall often. When it does, it comes as a quick thunderstorm and the sunbaked ground quickly soaks up the moisture. Plants may spring up, but they soon die.

Not all deserts are hot. There are cold desert lands north of the Himalayas and in northern China. Find these dry, cold regions on the map on pages 52–53.

Steppes and tropical grasslands

Large areas of the earth's surface do not receive enough rain for trees to grow there. Instead grass covers the areas. In the middle latitudes such lands are called "steppes." On these grassy plains great herds of cattle feed and millions of bushels of grain are grown. In the low latitudes these regions are called "tropical grasslands."

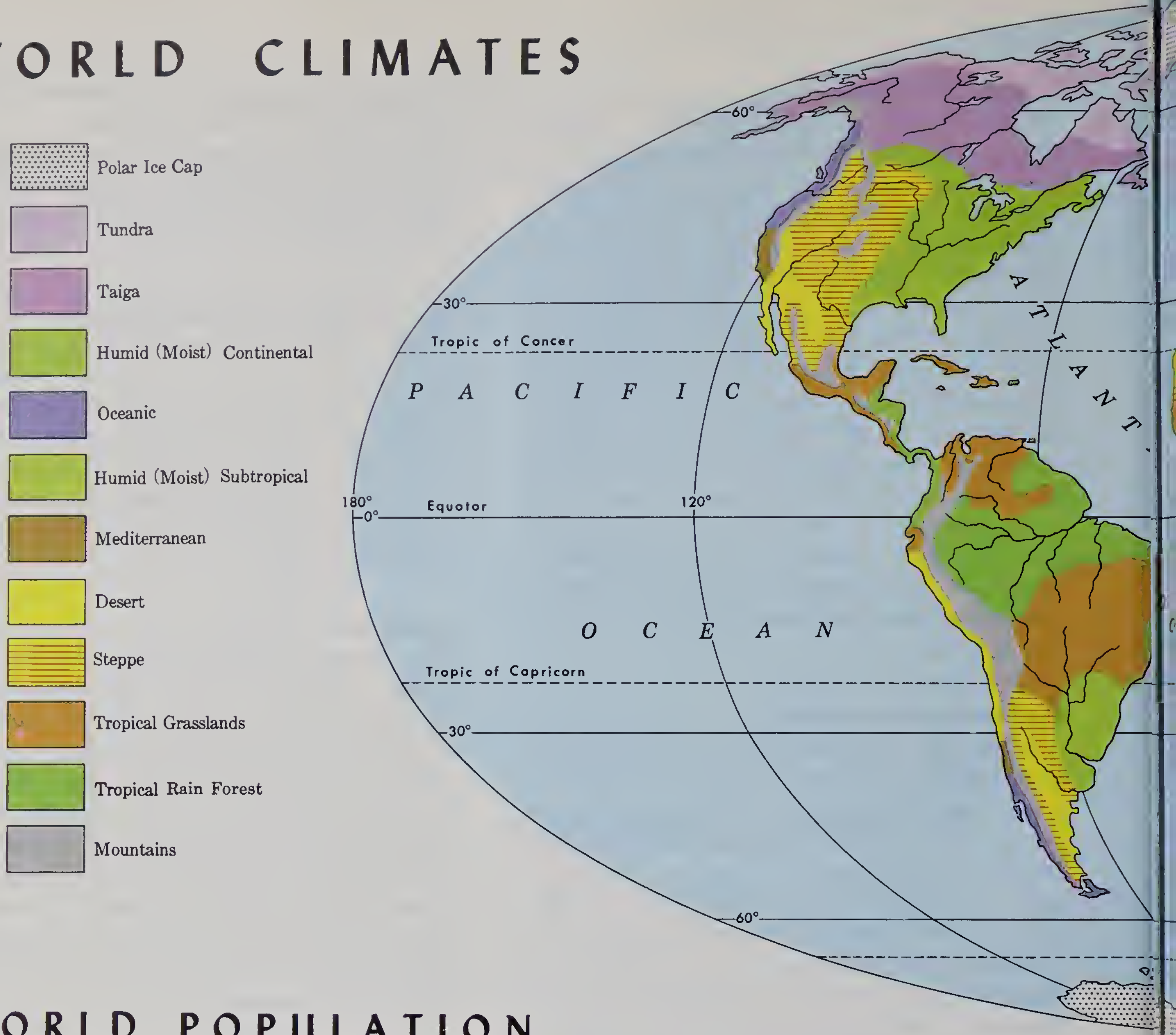
Tropical rain forests

The tropics are rainy regions, as the rainfall map on page 53 shows. The rain may fall in a definite season, or it may fall throughout the year. In these hot, wet regions, called "tropical rain forests," the trees grow tall and close together. In some places tangled vines reach all the way from the ground to the treetops. This makes the rain forests dark and hard to travel in. Few people live there, as you can see by comparing the rain-forest areas (shown in deep green) on the climate map with the population map on page 52.

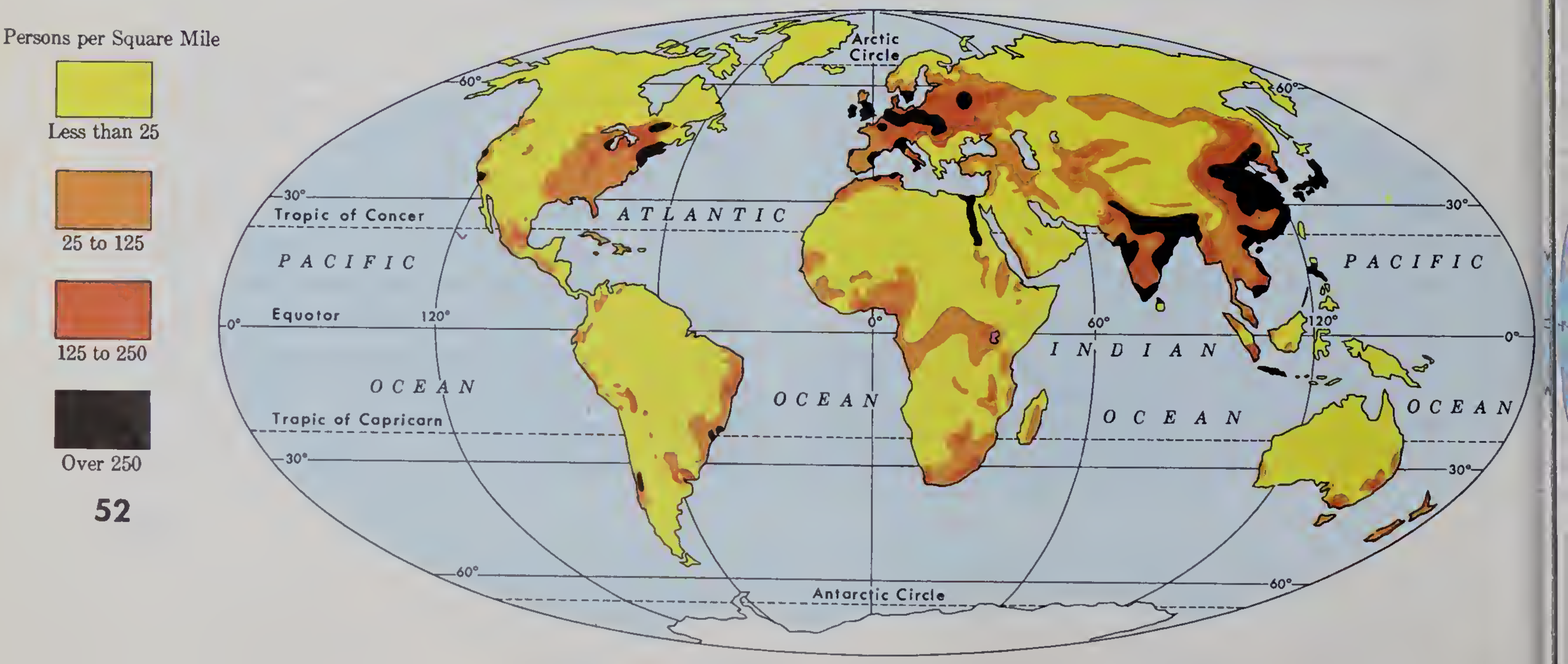
Mountain climate

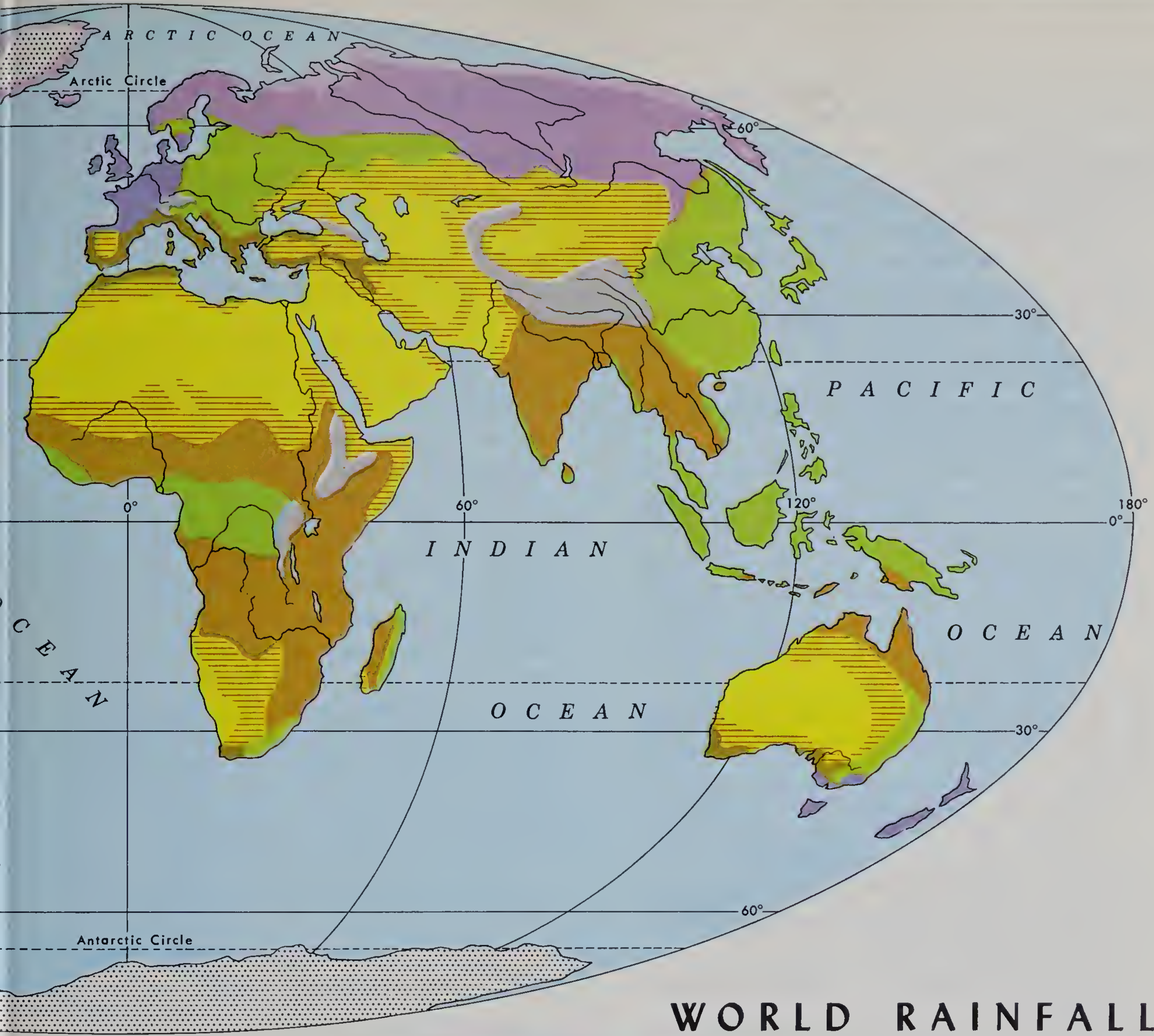
Because altitude has an important effect on climate, the temperature on mountains is always cooler than in the valleys below. This means that in high mountain regions even in the tropics the weather is cool and comfortable. Find these areas of "mountain climate" on the map on pages 52–53. The tallest mountains are so high that neither people nor plants can live on their barren heights three or four miles up. The air is too thin, or lacking in oxygen, and too cold to sustain life. On such mountain peaks snow and ice are found all through the year.

WORLD CLIMATES

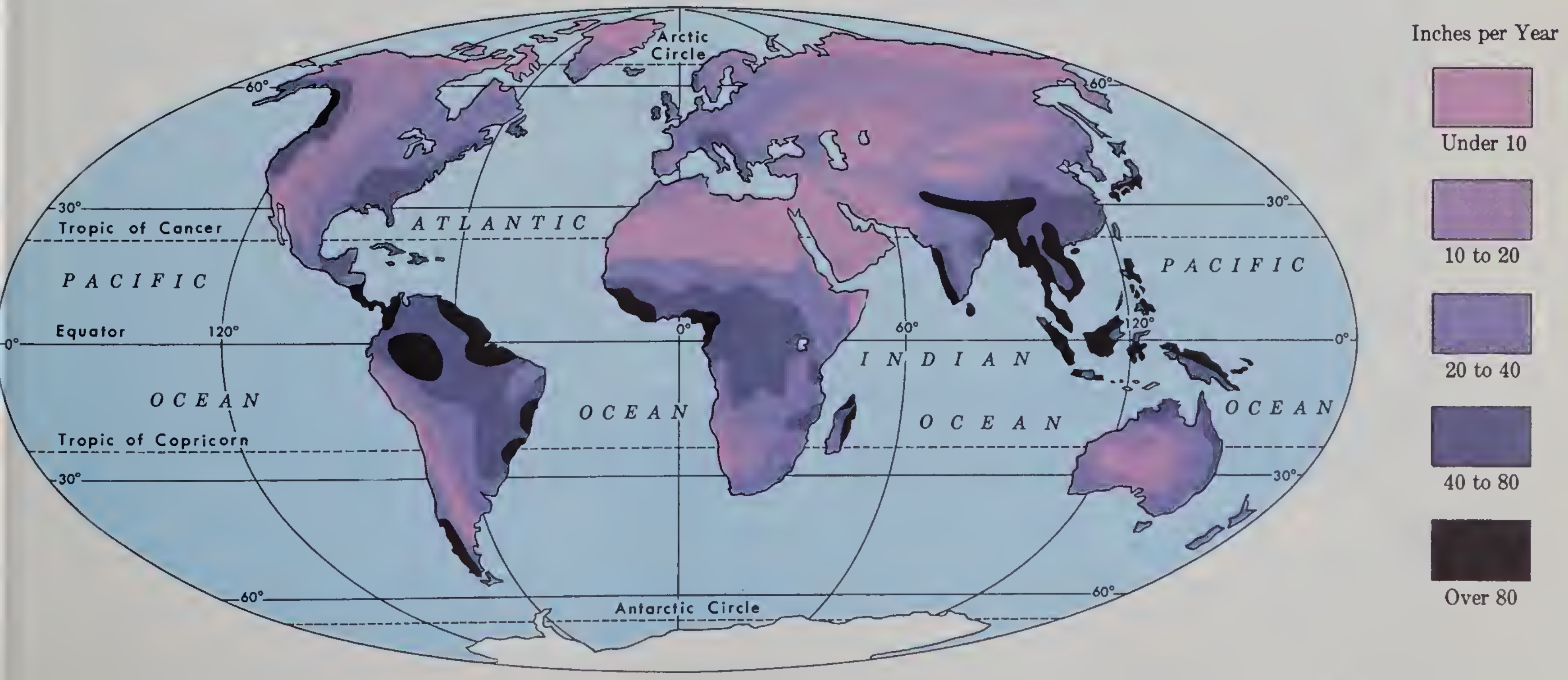


WORLD POPULATION





WORLD RAINFALL



TO HELP YOU LEARN

Finding the Facts

1. How have we learned about the people who lived before history was recorded?
2. Why did the earliest civilized communities develop in the river valleys?
3. How did early people clothe themselves? What materials developed in early times are still used for clothing?
4. What is meant by synthetic fabrics or textiles? Name three kinds.
5. From what materials did early men build shelters? Where did they find the materials?
6. Why is the standard of living low for many people in some countries with good natural resources? Give examples of such countries.
7. Explain why Denmark and Switzerland, with rather poor natural resources, have a high standard of living.
8. How did people first develop a language?
9. Explain how tribal customs were like written laws.
10. When did people first begin to settle in villages? Why did they need rules or laws to live together in communities?
11. Why do we remember King Hammurabi?
12. What two early Chinese inventions greatly aided communication?
13. How did democracy work in ancient Greece?
14. How did the Greeks express their love of beauty?
15. For what is ancient Rome chiefly remembered today?
16. What do we owe to the English system of government?
17. Into what three races do scientists classify the world's people? What have scientists discovered about the abilities of the races?
18. How did the experiences of Marco Polo influence later explorers?
19. What kinds of exploration are being undertaken today?
20. In what three ways are all people alike?

Using Maps

1. On the map on page 23 find the four cradles of civilization. Give two reasons why the people of each valley probably did not know of the existence of the other communities.
2. On the map of the Eastern Hemisphere, page 45, find the present-day nations in which the four cradles of civilization were located. In what latitude does each of these regions lie? What does this tell about the effect of climate on early man?
3. Compare the maps of world climate and world population on pages 52–53. What regions have the densest population, or the most persons per square mile? Now find each of these densely populated regions on the climate map. What kinds of climate exist in the areas with the most people? Next compare the climate of the areas that have the fewest people per square mile. What do these comparisons tell about the influence of climate on human life?
4. Compare the world population map, page 52, with the rainfall map, page 53. Is there much or little rainfall in areas where few people live? In areas where many people live? How do you explain this?

Using Reference Books

To learn more about a subject you will often want to consult reference books such as encyclopedias, almanacs, and atlases. An encyclopedia is a set of books in which articles, on many topics, are arranged in alphabetical order. Suppose that you are to make a report on the subject of archaeology. You will reach for Volume A and turn through it until you find the heading "Archaeology." After you have read the article, you may wish further information. If so, look at the end of the article for a list of related topics to be found in other volumes of the encyclopedia.

Two good reference books are the *World Almanac* and *Information Please Almanac.* Since these almanacs are published each year, they contain up-to-date information.

If your report deals with geography, you may need to use an atlas. An atlas is a collection of maps. Maps in an atlas are larger and have more details than the maps in your textbook.

Using the reference books in your library, look up one of these topics: Explorations, Inventions, Science, Egypt, China, Greece.

Making Geography Real

An excited Boy Scout met Commander Richard Byrd in New York City one day in 1928. The explorer was leading an expedition to try to reach the South Pole, and he had decided to take a Boy Scout with him. From the 600,000 Scouts who were eager for the trip Richard Byrd had chosen Eagle Scout Paul Siple.

Before going on the expedition, Paul Siple had studied about Antarctica, the ice-covered continent which surrounds the South Pole. He learned that it is the coldest and windiest place on earth. The average temperature there is 60 degrees below zero, and temperatures almost twice as low have been recorded.

The men sailed for Antarctica early in the year, taking with them all the equipment they would need. Like other explorers, they timed their trip so that they would be in Antarctica during the summer months when it is daylight all the time. They built a camp and called it Little America. Blizzards raged over the area and completely covered their huts with snow. Paul was surprised to find that the piled-up snow actually made the shelters warmer.

From Little America the men went out on skis exploring. In a ski-equipped plane Byrd made longer trips. How thrilled Paul was on the day that Commander Byrd flew over the South Pole! The expedition had achieved one of its main objectives.

On other flights Byrd discovered two mountain ranges and explored a region which he called Marie Byrd Land. Siple described his experiences on this expedition in a book called *A Boy Scout with Byrd*. Later Siple became a famous explorer on his own.

Without rereading this story, see how well you can answer these questions. Then check your answers.

1. At what season of the year do men explore Antarctica? Why?
2. What was the chief purpose of this Byrd expedition? Did it succeed?
3. What new knowledge about Antarctica did Byrd's expedition give the world?

Interesting Things to Do

1. Divide your class into four groups, and let each group study and report on one of the four cradles of civilization. Consult encyclopedias and other reference books, and use maps to make your reports complete.
2. Organize a field trip to find out about the occupations in your community. Divide into small groups, and let each group list the occupations in one block. Does your census show how division of labor is practiced in your community?
3. If you like to read, you will enjoy *Robinson Crusoe,* by Daniel Defoe, which is the story of a shipwrecked man who had to find his own food, shelter, and clothing. Two easy-to-read books that discuss archaeology are: *Backgrounds of American Freedom,* by Edna McGuire (Macmillan), and *Lost Worlds,* by Anne T. White (Random). *One God and the Ways We Worship Him,* by Florence Fitch (Lothrop, Lee, Shepard), is a book that will give you a better understanding of the major religious faiths.

Things to Think About

1. Which country—Greece or England—in your opinion developed ideas that have been the most valuable to us?
2. What qualities do explorers, inventors, and scientists have in common? Why are these qualities essential to each?

Making steel
in the United States

Harvesting corn
in the United States

A modern paper mill
in eastern Canada

Harvesting wheat
in western Canada

2.

The United States and Canada

A LARGE crowd of people had gathered in Buffalo, New York, on a day in 1927. Some stood along the high bank of the Niagara River. Many sat in parked cars. Others were in boats on the river and on Lake Erie near by. Across the Niagara River in the Canadian city of Fort Erie, Ontario, there was also a large crowd. These people had come to witness a celebration on the boundary line between Canada and the United States.

"The Peace Bridge is to be opened today," said one spectator in reply to a question from a man who had just arrived.

"What is the Peace Bridge?" the man asked.

"It is a bridge that has been built to link the great highway systems of the United States and Canada. It is to be opened officially today. It is called a Peace Bridge because the people of both countries will be able freely to travel back and forth upon it. The bridge is a symbol of the peaceful relations that exist between Canada and the United States. But, look, the program is about to begin!"

Just ahead stretched the gleaming new bridge high above the river. Men had gathered on either side of the bridge. Across the center of the bridge stretched a ribbon marking the international boundary.

Now the two groups, one representing the United States and the other representing Canada, began to move forward on the bridge. Some of the men were dressed in uniform. Bands on either side of the river began to play patriotic songs of the two nations.

The officials moved slowly forward, to the strains of music, until they met at the boundary line. Reaching across the ribbon, the officials shook hands. The ribbon was cut, and the Peace Bridge linking two great nations was declared open. Then the officials departed, and the first cars began to cross the bridge.

Bridges and other memorials stand at other points on the long border between Canada and the United States. They all testify to the long-lasting friendship between the two nations.

At Blaine, Washington, at the western end of the long boundary stands a Peace Arch. The flag of each country flies above it. On the United States side of the arch are the words, "Children of a Common Mother." On the Canadian side the legend is "Brothers dwelling together in Unity." People who pass the arch are reminded of the lasting friendship between our country and Canada.

In the central part of the continent, between the border cities of Detroit and Windsor, stands a peace monument. And on the boundary between North Dakota and Canada, there is a small international park, called a Peace Garden.

In this unit you will learn about the geography and ways of living in Canada and the United States. It will help you answer the following questions:

1. How do the people of the different sections of the United States live and make a living?
2. What is the life of our neighbors in Canada like?
3. What are the northern lands of Greenland and Iceland like?

1. A QUICK TRIP AROUND THE UNITED STATES

We all like to travel. Most of us want to see our own country first. Some of us look forward to the time when we can visit our neighbors in this hemisphere and even go to other parts of the world. Books are a way of traveling, too, for they are often written by persons who have traveled and who tell us what they have seen. Pictures and maps also give a good idea of what other parts of the world are like.

In this unit we shall take a quick trip across the United States. We shall make stops in the six different regions of our country to see what our land and its people are like. These sections are the Northeast, the Southeast, the North Central states, the South Central states, the Rocky Mountain states, and the Pacific states. We will also visit our northern neighbor, Canada, with whom we share a long border.

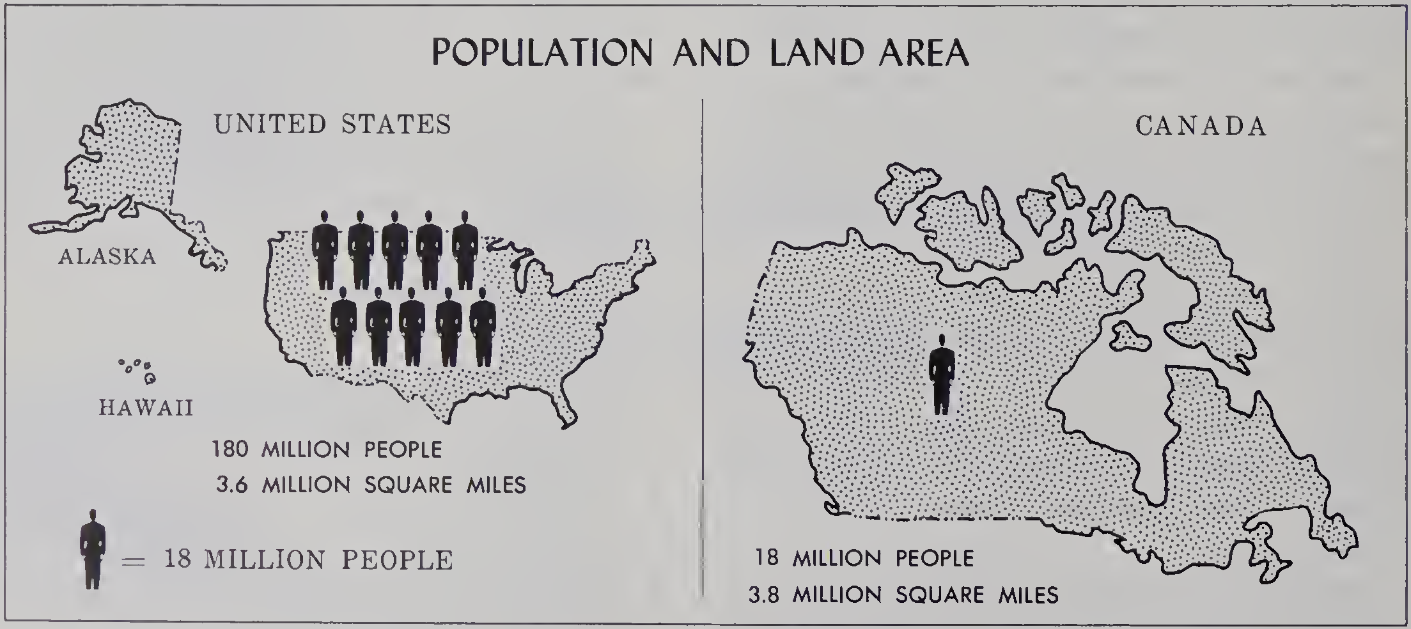
THE NORTHEAST

The first stop on our quick trip will be in the Northeast. The Northeast is made up of two large sections, the New England states and the Middle Atlantic states. More than 45,000,000 people live in the Northeast. It is a region of many cities. Throughout the Northeast four out of every five persons live in a small or a large city. That is, they live in an *urban center.* The people of the Northeast are mainly urban. Some of them live outside the main city, in suburbs. In this case, they are *suburban* residents. In many places the suburbs of one city touch, or almost touch, each other. We call such a solidly built-up region a *metropolitan area.* Let us take a look at some of the important metropolitan areas of the Northeast.

Living in the cities

Boston is the center of the largest metropolitan area in New England, as you can see from the map on page 62. During the more than 300 years since it was founded, Boston has grown from a small settlement into a great city of tall buildings and busy docks.

An air view of Boston would show us its great harbor. The harbor is filled with all kinds of boats—tugboats, speedboats,



Boston Chamber of Commerce

This is an aerial photograph of Boston, one of our oldest and largest cities. It shows modern buildings and great highways. Boston is a great port and a railroad and air center.

freighters, fishing boats, ocean liners, and coastal ships. To and from Boston move ocean steamers from all over the world and coastal ships from other ports of the United States. They bring in many raw materials such as grain, iron and coal, cotton, wool, and hides. They carry away fish—fresh and frozen—textiles, leather goods, and electronic equipment made in Boston's numerous factories.

Our air view of Boston would also show us that the area for miles around is one continuous city area. Here, as in many parts of the Northeast, life has always centered in towns and cities. Factories run by water power were built in this area very early. Because workers were needed, people came to live near the factories. As the factories grew, churches, schools, libraries, stores, and office buildings became part of each community. Each community needed teachers, lawyers, doctors, ministers, bankers, and city employees. More and more goods were produced and sold. Workers of every kind were needed, so population growth continued.

There were other reasons, in addition to water power, why New England took an early lead in manufacturing. One was that it had men who were clever at inventing things. Another reason was that it developed many skilled workmen who made the things that had been invented. Thus great factories sprang up in and near Boston, and the city became a center of trade. Today many ships serve its port, and railroads and highways connect it with other cities in New England and the rest of the nation.

Boston is a combination of the old and the new. Many of the streets are narrow and winding. Among tall buildings are old ones recalling the days of the American Revolution. One such building is Faneuil Hall, often called the "Cradle of Liberty," because the patriots who worked for independence held meetings there. Another is Old North Church, in whose steeple were the lanterns used as a signal to Paul Revere on his midnight ride. Near the heart of the city is Boston Common, the village green where early citizens pastured their cows and which is now a public park. On Beacon Hill stands the State House. Its golden dome reminds us that Boston is the state capital.

Boston is also a great *cultural center*. That is, its people are interested in many worth-while activities, such as music, art, and books. Boston has a fine public library, many churches, and colleges. In Cambridge, a suburb, is Harvard University, a famous school of higher learning. Harvard was founded just six years after Boston began.

Boston has many theaters and lecture halls, where its people can amuse themselves and keep abreast of new ideas. Boston is also the home of good music. Many people from all parts of the nation visit Boston to enjoy its cultural offerings.

Let us now look at the great industrial center of Buffalo, in western New York. Buffalo, on Lake Erie, is located at the point where the New York State Barge Canal connects the Great Lakes with the Hudson River. Find these places on the map on page 62. Buffalo is one of the many cities in our nation which have grown up at the crossroads of trade. It is also served by railroads as well as waterways.

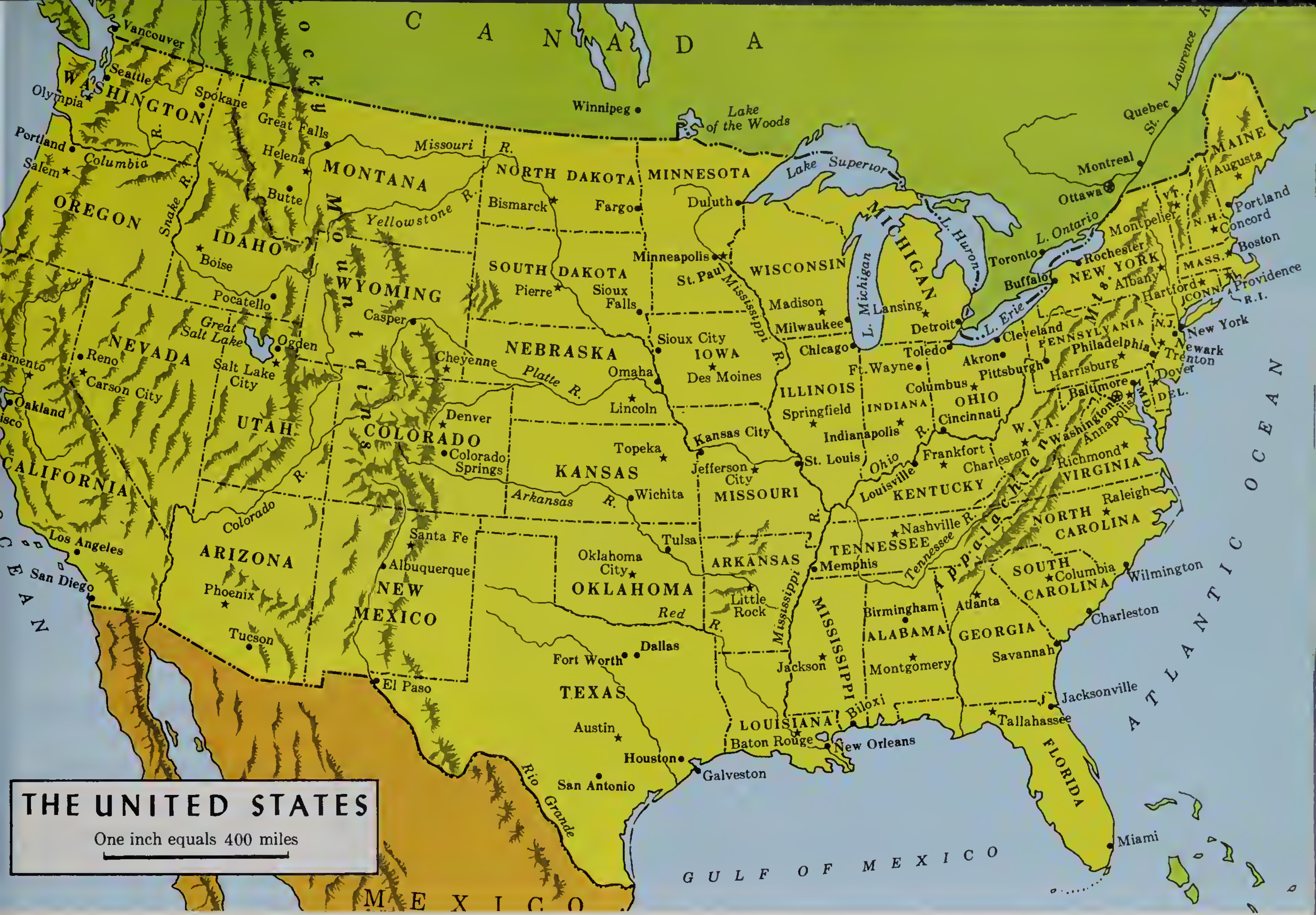
To Buffalo, from points farther west, come lake freighters, some of them hundreds of feet long, carrying grain, lumber, and iron ore. At Buffalo some of this freight is transferred to canal barges or railroads and sent to Albany, New York City, and other places to the east and the south. Going west, on their return trips, the lake freighters carry coal and goods made in the factories of the East. Some of the raw materials brought in are processed in Buffalo. In this city great quantities of wheat are milled into flour, and much iron ore is made into steel.

Near Buffalo is one of our nation's scenic wonders, Niagara Falls. There the waters of the Niagara River drop over the edges of steep limestone cliffs and dissolve in a great thundering spray. Behind the falls are steep tunnels that carry water to great *turbines*, or rotary engines. These turbines run *generators* that make electricity. The electricity generated by the falls is used to light cities and supply power for factories more than two hundred miles away. From these generators Buffalo receives abundant electric power to run its great mills.

We share Niagara Falls with our northern neighbor, Canada. Tourists from both countries visit the falls each year.

If we were to take a barge at Buffalo, we could travel on the canal, past great cities, until we reached the Hudson River. This river cuts through the hills and plains of New York State until it empties into New York Bay, on the Atlantic Ocean. Here in the largest, best-protected harbor on the Atlantic coast stands New York City. This city began as a small settlement, built by the Dutch on Manhattan Island in 1626. In 1664 the Dutch colony was taken over by the English.

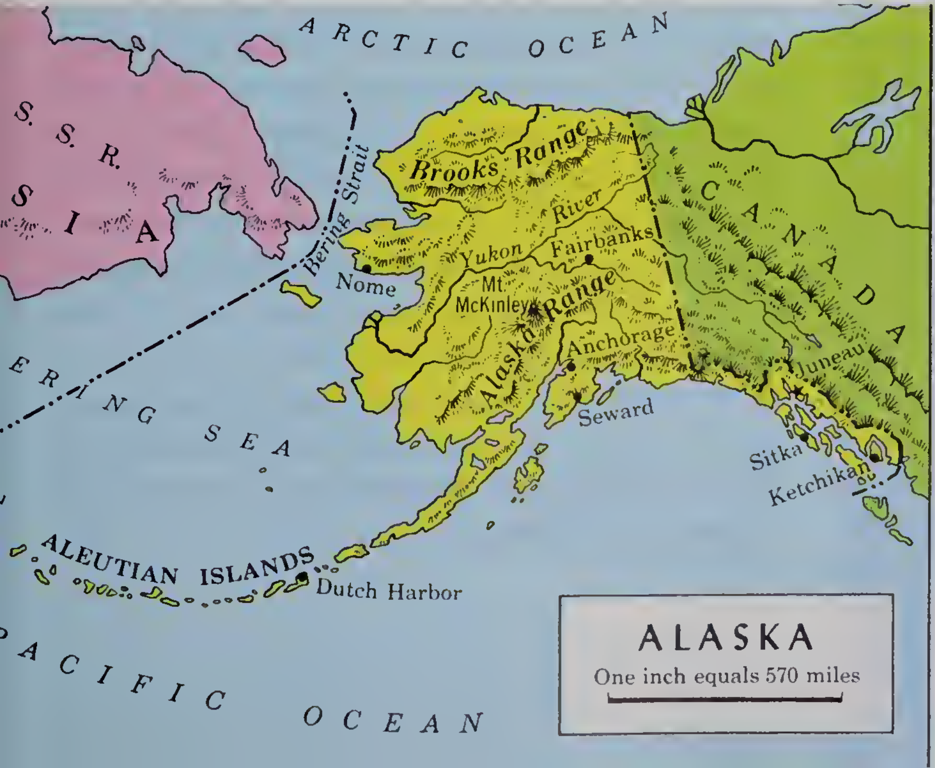
The city grew slowly until what is now the Middle West was settled and the Erie Canal, connecting the Great Lakes with the Hudson, was opened in 1825. Thousands of boats were soon busy carrying freight and passengers to and from the Great Lakes region and the Atlantic Ocean. This exchange of needed products over an all-water route saved both time and money. Farmers of the



THE UNITED STATES

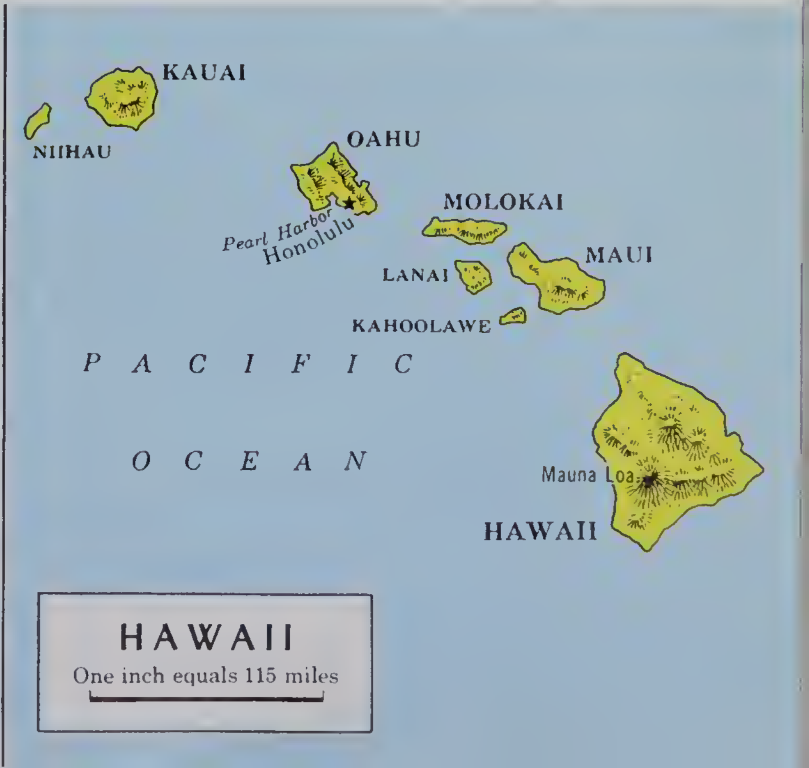
One inch equals 400 miles

The maps on this page show the fifty states of the United States. The forty-eight states on the map above are located in the middle of the North American continent. The map at the left below shows Alaska, our forty-ninth state. At the right below is a map showing Hawaii, our fiftieth state.



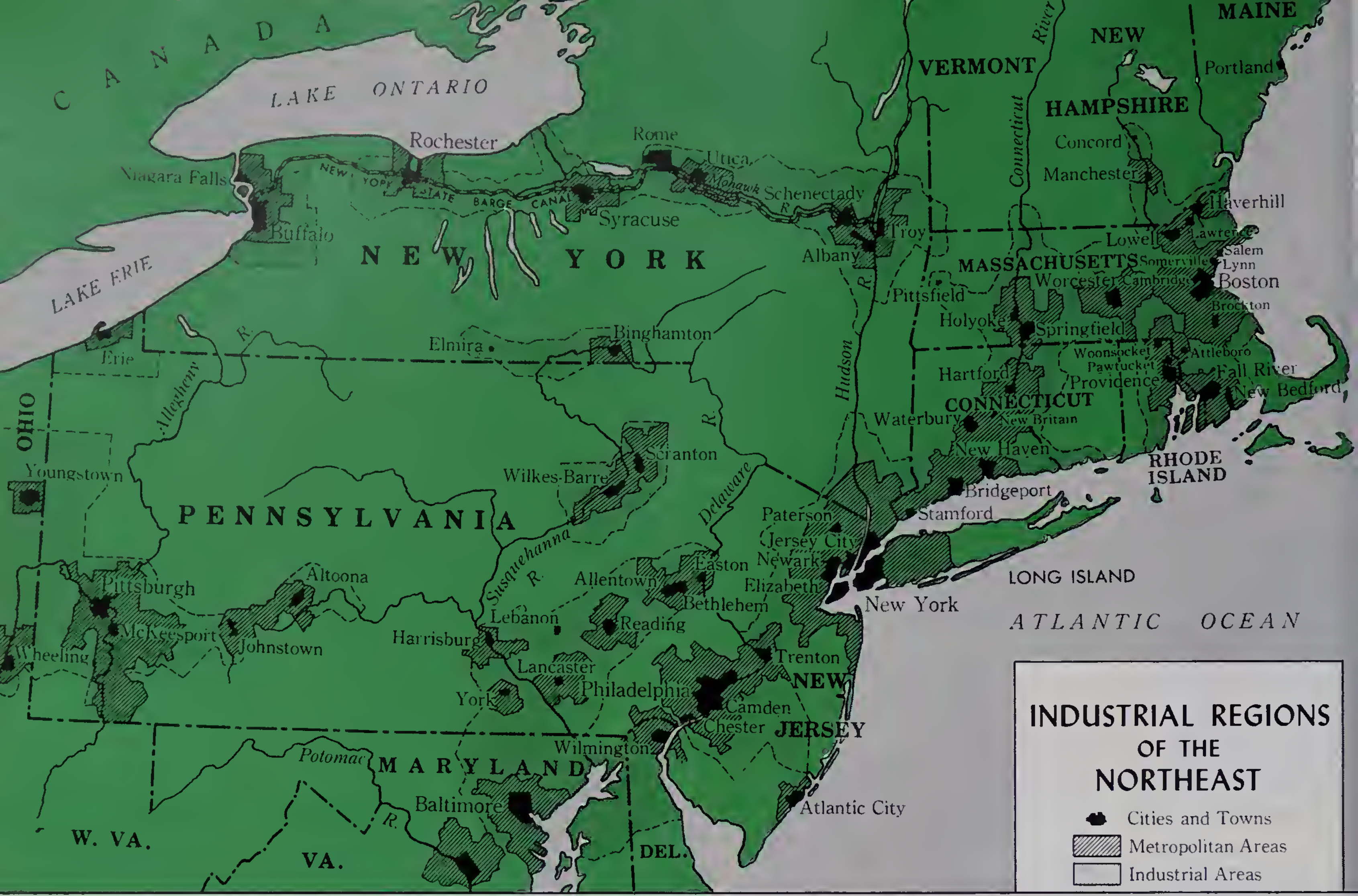
ALASKA

One inch equals 570 miles



HAWAII

One inch equals 115 miles



Study the map of the industrial regions of the Northeast. Make sure that you understand the map signs for cities, industrial regions, and metropolitan areas. Where are the largest industrial areas? Which states have few or no such areas? Can you give reasons for this?

Middle West received good prices for the things they sold and paid lower prices for what they bought. The people of the East were able to buy western products for less and sell their own for more. Within twenty years New York City more than doubled its population. Other cities along the canal and the Hudson River grew in size also. And the state of New York quickly took the lead throughout the country in trade and in many industries.

Today New York is our nation's largest city. Into its harbor come great ocean liners. Thousands of ships enter and leave this port each year. Incoming ships bring raw materials and manufactured goods from all parts of the world. Outgoing ships carry many factory products, such as ready-made clothing, books and magazines, electrical machinery, and drugs. Raw materials from other parts of the nation are brought to New York by railroad and by boat.

From there, ships carry cargoes to many parts of the world. In fact, the port of New York handles about half of the export trade of the United States.

New York City is famous for its skyscrapers. One of them is the Empire State Building, the tallest building in the world. Like Boston, New York is also one of the nation's great cultural centers. It has splendid museums, an opera house, many theaters, great universities, and one of the finest public libraries in the world. It is also the home of the United Nations.

Transportation is an important problem not only in the growth of a city but also in the maintenance of its services. New York City is so large and its buildings are so crowded together that its people must be served by many kinds of transportation. On its streets are buses and taxis, automobiles and trucks. The most rapid way to travel in this city is on electric trains that run under the ground. These trains run in tunnels called *subways*. Three great subway systems lead from the center of the city to all parts of the city.

Every day railroads and airplanes bring thousands of people—businessmen, office workers, shoppers, and tourists—to the city. Trains, traveling in tunnels under the Hudson, and ferryboats move back and forth to Manhattan Island, the heart of the business and financial district. Fine, wide highways and thoroughfares lead into the city. Huge suspension bridges connect the island with other parts of the metropolitan area.

Moving southward, to the neighboring state of Pennsylvania, we reach the great seaport of Philadelphia. Today this city, founded by Quakers, is one of the largest in the United States.

Philadelphia is located on the Delaware River near the point where it flows into Delaware Bay. It is the center of a large industrial area in Pennsylvania and in New Jersey (see the map, page 62). Superhighways lead to the city and great bridges span the river. A network of railroads also serves the city. To its docks come ships bearing cargoes from all parts of the world. From its harbor go the products of the many factories and mines in near-by regions.

In the factories of this great industrial area clothing, textiles, and many iron-and-steel goods are made. More large ships have been built in its shipyards than in any other harbor in the nation. The locomotives, which are also one of Philadelphia's specialties, remind us that it was railroads that helped the city to grow. Until the steam locomotive was invented, it was hard to get products across the mountains. Find this highland region on the map, page 61.

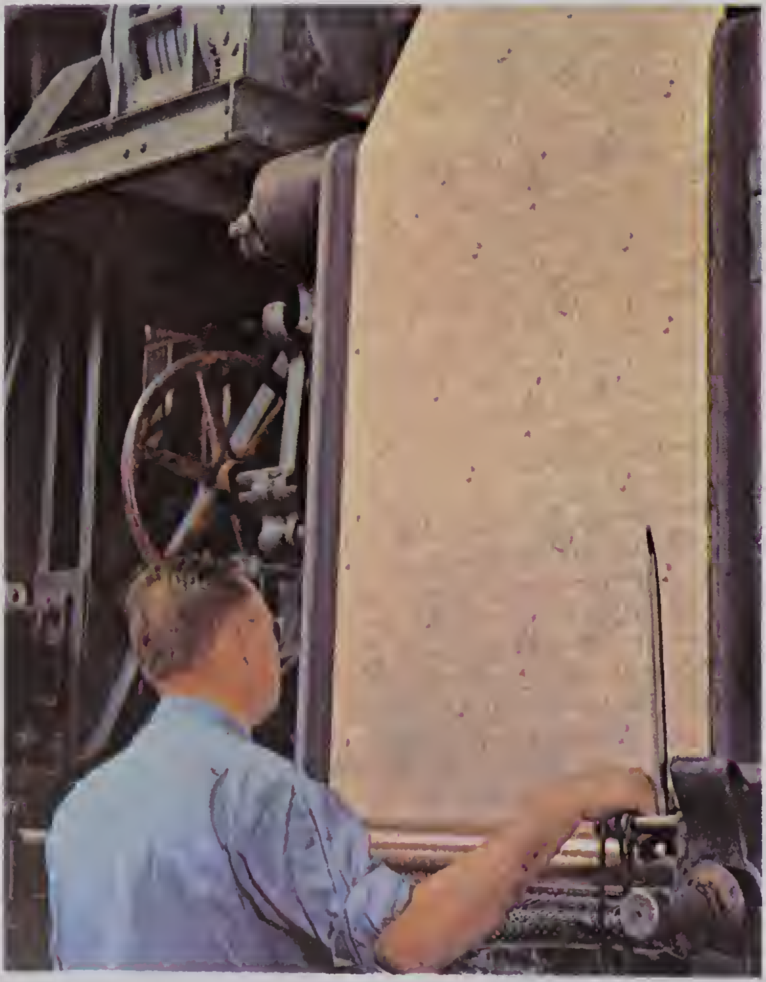
A ship is being constructed at this large shipbuilding plant on the Delaware River at Chester, Pennsylvania, near Philadelphia.

Herbert Lanks from A. Devaney

Ewing Krainin

New York City, the largest port in our nation, is a world center of the shipping industry.

FOUR INDUSTRIES OF THE NORTHEAST



A. D. Gaynor from Shostal

The picture at the left shows cloth on a roller in a large textile mill. A pattern in several colors is being printed on the cloth.

One of Philadelphia's many industries is printing magazines and books. Shown below is a press that is printing pictures in color.

Harris-Seybold

Philadelphia is a great modern city. Like Boston, it is a mixture of the old and the new. Standing beside tall, new buildings are many that were built in colonial days. One of these is Independence Hall, where our Declaration of Independence was signed in 1776. The city is a cultural center, for it has museums, a number of universities, concert halls, and theaters.

Across the state of Pennsylvania, on its western border, is Pittsburgh. This city began as a fort built at the point of land where the Allegheny and the Monongahela rivers join. These two rivers run through a rough, hilly region known as the Allegheny Plateau, a region that abounds in minerals. The rivers join to form the Ohio River.

Whenever Pittsburgh is mentioned, we think of great blast furnaces and iron-and-steel mills. Two things have made Pittsburgh a great industrial city.

One is the existence of the bituminous coal fields of western Pennsylvania. This soft coal is made into coke for use in the blast furnaces of the Pittsburgh region.

The other is an oil and natural gas region north of the city. It reminds us that the first oil well in the United States was drilled in Pennsylvania in 1859. In the Allegheny Plateau, north of Pittsburgh, there is much natural gas. These sources of power run Pittsburgh's factories and steel mills.

Pittsburgh has often been called the "gateway to the West." Raw materials can be cheaply brought in by way of the Allegheny and Monongahela rivers. The finished products can then be shipped down the Ohio River to cities in the South and the West. The city is also served by many railroads. Lines from the East reach the West by way of Pittsburgh. Truck and bus lines also use this gateway city. A great national highway —the Lincoln Highway (U.S. Route 30)— runs through Pittsburgh.

Pennsylvania has some iron mines, but most of the iron ore used in Pittsburgh's steel mills comes in from the Lake Superior region of Minnesota, Wisconsin, and Michigan. It is shipped into the city through the Great Lakes, then by railroad to Pittsburgh.

Photo by Jones & Laughlin Steel Corporation

Iron is smelted in great blast furnaces like this one which is near Pittsburgh. Notice how the red fires light up the night sky. The United States leads the world in the making of iron and steel.

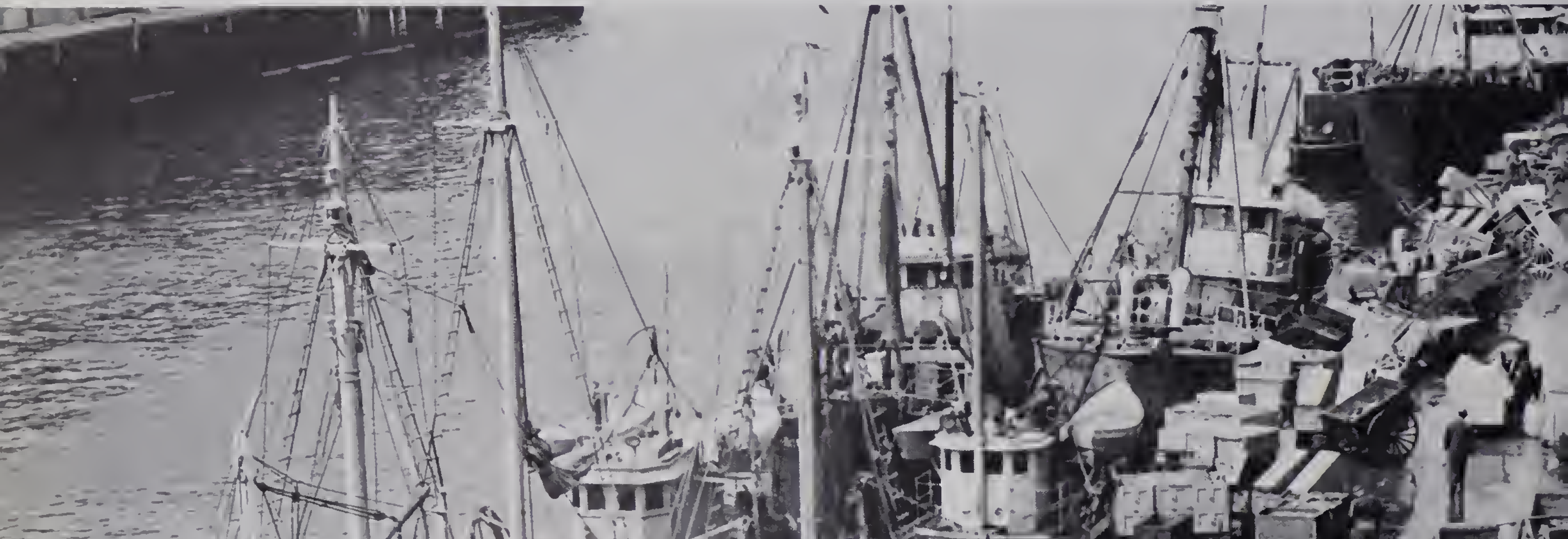
Living from the sea and the soil

Many people of the Northeast, as we have seen, make a living in cities. But many also make a living from the sea and from the soil.

Fishing is important all along the coast of New England. Boston and Gloucester, in Massachusetts, and Portland, Maine, are leading fishing ports. Some fishermen in their boats move back and forth between the fishing banks and the wharves, bringing great loads of cod, mackerel, and herring. Other fishermen work near the shore trapping lobsters and lowering nets for small fish. Some of the catch is sold fresh, but most of it is processed for shipment inland.

The famous fish pier in Boston is a busy place. Trawlers lie alongside the pier. Carts filled with fish are being wheeled to the processing plant, and empty ones are waiting to receive more fish.

General Seafoods Corporation



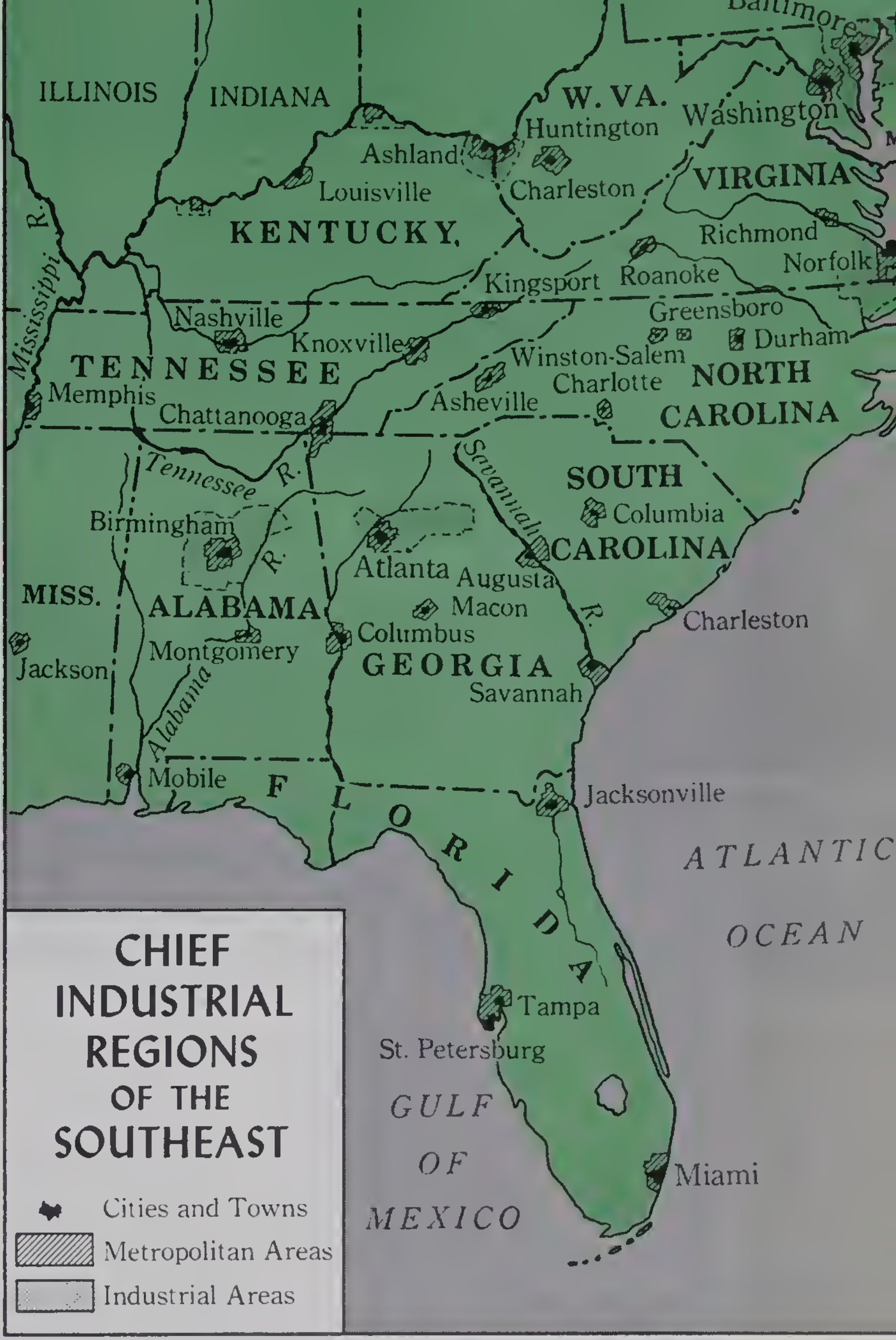
New England is not important as a farming area. The soil is thin. In parts of New England the climate is too cool for many crops. But near the cities there are many truck farms, where food crops are raised. The region is one of good dairy farms because the ample rainfall makes pastures and hay crops grow well. In *rural,* or country, areas, large crops of potatoes are grown. Maine is noted for its fine potatoes. Fine apples and berries are also grown in the rural areas of New England and New York state. New York is also one of the nation's leading dairy states.

The Middle Atlantic states have fertile plains and hills. Back from the wide, sandy beaches along the Atlantic stretches the low Atlantic Coastal Plain. This plain is today a rich garden land. New Jersey, New York, and southeastern Pennsylvania produce many different kinds of crops.

West of the Atlantic Coastal Plain rise the Appalachians. Farther west is the hilly land of the Appalachian Plateau, where many men earn a living by mining. In the valleys which extend far to the south, the land is fertile and fine crops of many kinds are raised. We shall see why this is so when we visit the Southeast.

THE SOUTHEAST

The map on this page shows the eleven states of our Southeast. One of these states, Maryland, is north of the Potomac River. The ten other states of this section are south of the Potomac and Ohio rivers. They lie between the Atlantic Ocean and the Mississippi River. On the south, three of these states touch the Gulf of Mexico. The District of Columbia is also in the Southeast. About 37,000,000 people live in this section of the nation.



Which of the cities shown here are centers of large industrial areas? What are the important industries in each of the areas?

The Appalachian Mountains extend through the eastern part of the Southeast and reach nearly to Atlanta, Georgia. The mountain range named the Blue Ridge is well known in story and song. The Great Smoky Mountain National Park, in the Appalachians, has been set aside by the United States government for the enjoyment of the people of the nation. Many thousands visit this park each year—more, in fact, than visit any other national park.

Paul Schmick from Shostal

The open area shown above is the Mall, in Washington, D.C. The high-domed building is the Capitol. The National Gallery of Art, in the center, contains a world-famous art collection.

An upland region of rolling hills, called the Piedmont (which means "foot of the mountain"), lies between the Appalachians and the coastal plain. The rivers of this region have their sources in the Appalachians. They flow across the Piedmont and tumble down from this upland upon the Atlantic Coastal Plain, causing waterfalls and rapids. The swiftly flowing rivers along this Fall Line, as it is called, supply power to many cities.

The plains and low hills of the Mississippi River valley lie to the west of the Appalachians. Find the Cumberland and the Tennessee rivers on the map. Notice that these flow to the mighty Ohio River and their waters eventually reach the Mississippi.

The Gulf Coastal Plain, near the Gulf of Mexico, connects with the Atlantic Coastal Plain. Florida lies on these plains.

Living in the cities

Manufacturing is scattered over many parts of the Southeast (see the map on page 67). Baltimore has long been an important factory center. After the year 1900 many factories grew up in other cities of the Southeast. Soon the Piedmont and Fall Line cities became important in cotton manufacturing.

In recent years more and more factories have been built throughout the Southeast. Aluminum goods, automobiles, farm machinery, textiles, furniture, and many other products are made in these factories. During World War II, the nation's center for making atomic bombs was in Tennessee.

In the Southeast is our national capital, Washington, D.C. It is the ninth largest city in the United States. Government is the main business of this city.

The largest city in the Southeast is Baltimore. It was founded in the 1630's by Lord Baltimore. Although it is 200 miles inland from the Atlantic, it has an excellent harbor on the Chesapeake Bay. Today Baltimore is the sixth city in population in our nation and one of the largest seaports. Many men earn a living as fishermen there. The factories of Baltimore hum with activity. They turn out more than 2000 different products, ranging from tin cans to great ships.

Large deposits of coal, iron ore, and limestone lie within a few miles of Birmingham, Alabama. Iron-and-steel mills were built there because these raw materials were close at hand. In the 1880's a city grew up around the new steel mills. It was named for Birmingham, England, which is also a steel city. Most of the other cities of the Southeast are older, but all have grown in recent years.

Norfolk and Mobile are important seaports of the Southeast. Louisville and Memphis are leading river ports. West Virginia has cities with important chemical factories and steel mills. Jackson, Mississippi, has grown rapidly since the discovery of oil in the state. Atlanta, Georgia, is a leading commercial city and a fine cultural center.

Living from the sea and the soil

Along the Atlantic and Gulf coasts of the Southeast many persons earn a living by fishing. In these waters it is said that fishermen can catch eighty different kinds of fish. Some fish are used for food and some for making fertilizer. Chesapeake Bay and the coastal waters of North Carolina and South Carolina

North Carolina News Bureau

The farmer and his mule above are working in a North Carolina tobacco field. Notice how wide and tall tobacco plants grow.

U. S. Steel Corporation

The steel plant at the left is in Birmingham. This city in Alabama is the South's leading iron-and-steel-making center.

are famous for their oyster beds. The coasts of Mississippi and western Florida have many shrimp fisheries. Off the western coast of Florida near Tampa, divers plunge deep into the water to pull sponges from the rocks.

In the Southeast more people still make their living by farming than in any other way. This is the land of cotton and tobacco. Cotton and tobacco are industrial crops, rather than food crops, because they are used in manufacturing. Thus the farmers supply the materials which help many factory workers make a living. Other farmers grow corn and feed it to beef cattle and to hogs. Florida has a climate that is excellent for citrus fruits. In winter farmers there grow vegetables for shipment to the Northeast. South Carolina and Georgia grow fine peaches.

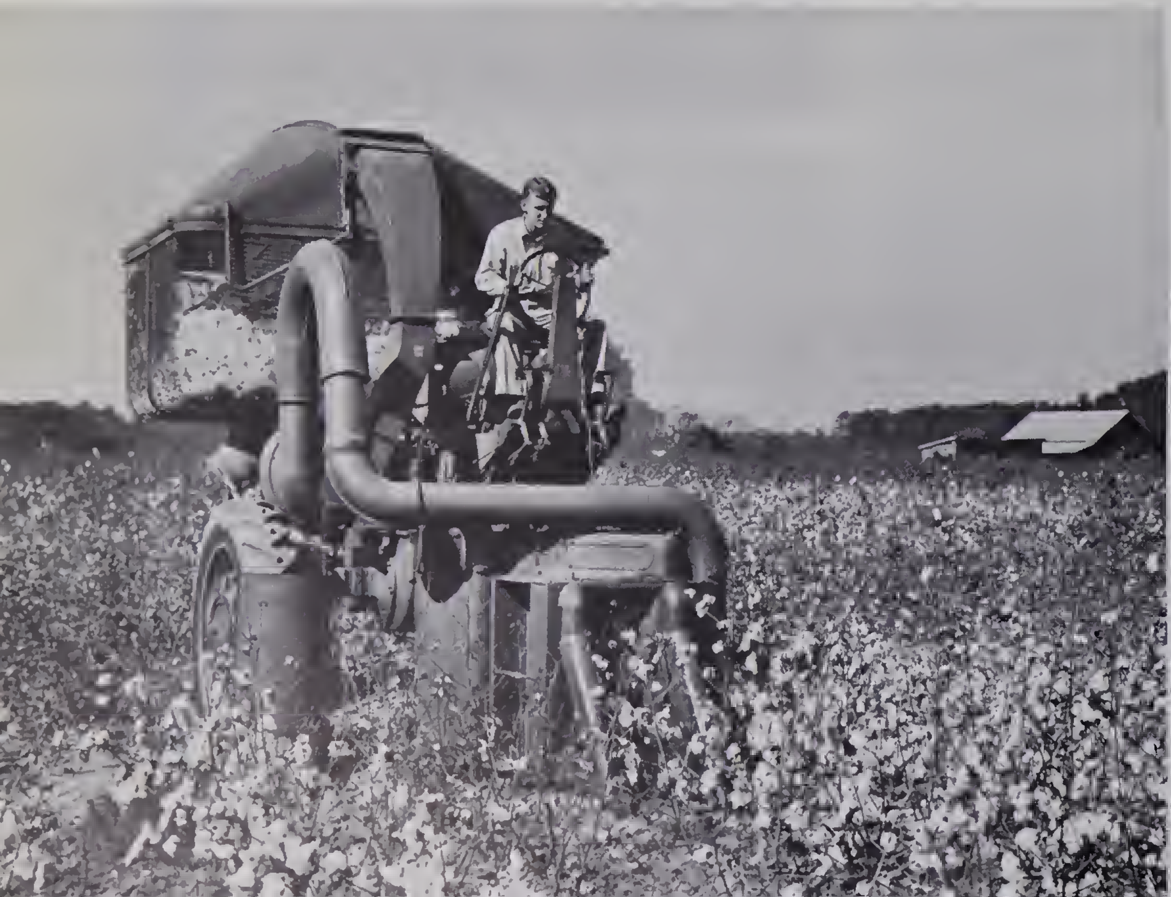
Forests cover large areas of the Southeast. Many people work in the hardwood forests of the Appalachians or in the pine forests of the coastal plain. Today nearly half of our wood products come from this section of the United States. Many furniture factories are found in the cities of this area, and plywood is manufactured in most of the states.

Coal is mined in the Appalachian regions of West Virginia, Virginia, Kentucky, Tennessee, and Alabama. Kentucky also has large coal fields in its western part. Iron ore is found near Birmingham. Copper and zinc are mined in Tennessee. Florida leads all states in the mining of phosphate, a mineral used in the manufacture of fertilizer. Fine building stones, such as marble and granite, are quarried in Georgia. Mississippi has newly-drilled oil fields.

The mountains and the seacoasts of the Southeast attract many tourists, who enjoy the beautiful scenery or spend their winters in the mild climate. Caring for tourists is another way in which the people of the Southeast make a living. Florida is a busy tourist state, especially during the winter when much of the United States has cold weather. Miami is one of the most famous tourist cities in the nation.

National Cotton Council

Above is the white, fluffy cotton of an opened boll.



Growing and processing cotton is one of the chief industries in the South. This machine saves work by picking the cotton from two rows at the same time.

Standard Oil Co., (N.J.)

After the St. Lawrence Seaway was built, Duluth-Superior became a large inland world port.

THE NORTH CENTRAL STATES

The North Central section, sometimes called the Middle West, is a large area covering twelve states. Six of them—Ohio, Indiana, Illinois, Michigan, Wisconsin, and Minnesota—border the Great Lakes. Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas are served to some degree by navigable rivers. About three out of ten persons in the United States, or 52,000,000 people, live here. Of these, 36,000,000 live in the states east of the Mississippi River.

The Great Lakes are so large that they are really inland fresh-water seas. They are busy waterways. The average ship on the Great Lakes is larger than many ocean vessels. Duluth and Superior together form one lake port, which is our nation's second largest port measured by the tonnage of freight that is moved through it. Two or three other lake ports are also among the busiest ports in the United States.

Many rivers of this section are navigable, especially the Illinois, the Ohio, the Mississippi, and the Missouri. The Great Lakes are connected with these rivers by a canal. Small boats and barges can sail from the Great Lakes to the Gulf of Mexico. They can also go through the New York State Barge Canal to the Hudson River and so reach the ocean at New York City. Larger vessels from the Great Lakes can reach the Atlantic Ocean by going down the St. Lawrence Seaway and St. Lawrence River.

Living in the cities

Many of the manufacturing cities of the North Central section are on waterways (see the map, page 74). On the Great Lakes the largest cities are Cleveland, Toledo, Detroit, Milwaukee, and Chicago. The twin cities of Minneapolis and St. Paul, in Minnesota, and the city of St. Louis, Missouri, are on the Mississippi. The two cities named Kansas City, one in Missouri and one in Kansas, form a large urban area on the Missouri River. Omaha, Nebraska, is also on the Missouri. Cincinnati is a large city on the Ohio.

Columbus, Indianapolis, and Des Moines are not on navigable rivers. Neither are the cities southeast of Cleveland, where you see Akron, the nation's rubber center, and

Ewing Galloway

This picture of Chicago shows many tall buildings of the city. Chicago is the second largest city in our country. What city is the largest in population?

Youngstown, a great steel city. They are part of a continuous urban area in Ohio bordered on the east by Pittsburgh.

Chicago, the second largest city in the United States, is surrounded by a large metropolitan area. Because of its central position it is the largest railroad and airway center in the nation. It also has important lake and river shipping facilities. Chicago is the nation's major grain exchange. Its steel mills supply great quantities of steel, as do those of Gary, Cleveland, Youngstown, and other cities.

Detroit is the nation's headquarters for the manufacture of automobiles and trucks. Minneapolis is important for its flour mills. Milwaukee has varied manufacturing, of which the making of machinery is important.

Many of these cities are cultural centers, also. Minneapolis, Cleveland, Chicago, and St. Louis are the homes of great universities. They have fine libraries and museums. Their people enjoy music and the arts.

Living from the land

The plains of the North Central states are the most important farming section of the United States. Great dairy lands stretch across Michigan, Wisconsin, and Minnesota. With New York State, in the Northeast, these compose our leading dairy states. Milk and cream are shipped to the cities. Half of the cheese manufactured in the United States is made in Wisconsin. Minnesota leads in the manufacture of butter.

The farming area which stretches from Ohio westward across Indiana, Illinois, and Iowa to central Nebraska is known as the corn belt. This is one of the world's most important farming areas. Much of the corn raised there is fed to cattle and hogs and marketed in the form of meat.

On the western edge of the North Central section are great wheat lands. Kansas and North Dakota are our leading wheat states. But other crops, such as rye, barley, oats, and flax, are grown as well.

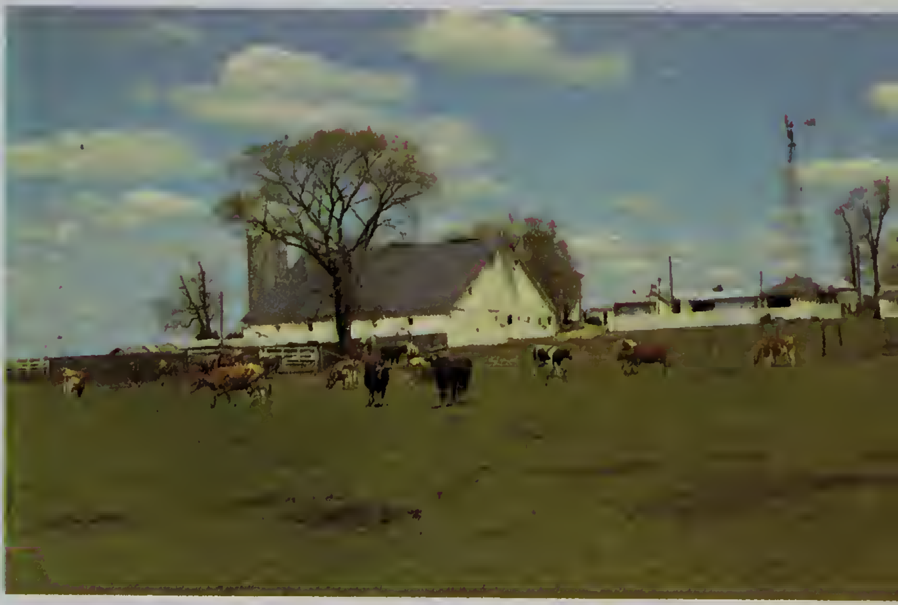
The Black Hills of South Dakota, which are really mountains, and the Ozark Mountains of Missouri are the only parts of the North Central section where farming is not important. These upland regions, however, are visited by many tourists, who enjoy the fine scenery of thickly wooded mountains.

FARMING AND MINING IN THE MIDDLE WEST

Caterpillar Tractor Company

General Mills

Yellow wheat fields, like those above, with acres of grain, are familiar sights in the Dakotas and Kansas in late summer. The tall, round grain elevators are used to store the grain temporarily after harvest. Later it is taken to mills and ground into flour.

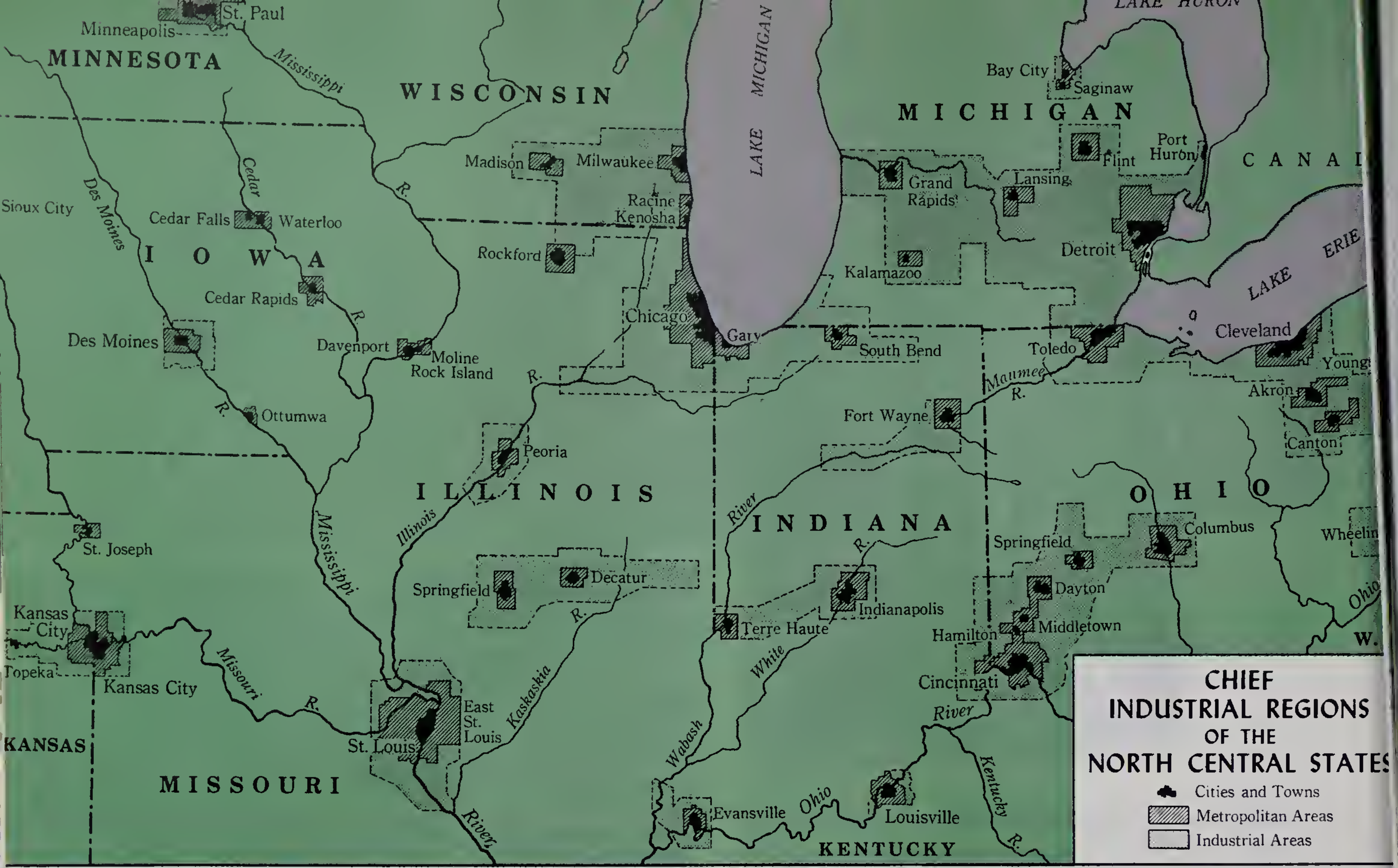


Iowa Development Commission

The farm shown above is like many in the Middle West. What might be raised there?

Standard Oil Co., (N.J.)

Open-pit iron-ore mining, shown at the right, is carried on in certain areas in Minnesota. This method of mining can be used when the ore is near the surface. Railway tracks are laid along terraces. Cars carrying the ore go from the mine to docks on Lake Superior.



What part of the North Central states has the most cities and large industrial areas? Can you explain why? For what reasons are the Great Lakes important to industry in the North Central states? Name some manufactured products of each industrial region shown on the map.

The northern part of the North Central section contains many thousands of lakes. This is an area of many forests. The lakes and forests of the northern regions of Michigan, Wisconsin, and Minnesota attract great numbers of summer vacationers. The Great Lakes attract tourists as well, for they offer good swimming, boating, and fishing. The lakes also support commercial fishing. The Great Lakes are one of the most productive inland fisheries in North America. Commercial fishermen there catch most of the fish with nets or traps.

One of the greatest iron-mining regions in the world is around Lake Superior. Some mines are below the ground, while others are great open-pit mines. Railway tracks lead from these mines to the docks at Duluth, Superior, and other near-by lake ports. At the ports iron ore is dumped into storage pockets, or bins set in the docks, and later transported to giant ore boats.

Ohio, Indiana, and Illinois have important coal fields. Some coal is mined, too, in Iowa, Missouri, and Kansas. Kansas, North Dakota, Illinois, and Michigan have oil fields. There are lead and zinc mines in Missouri. Salt from Michigan is important in many industries. South Dakota has the largest gold mine in the United States.

THE SOUTH CENTRAL STATES

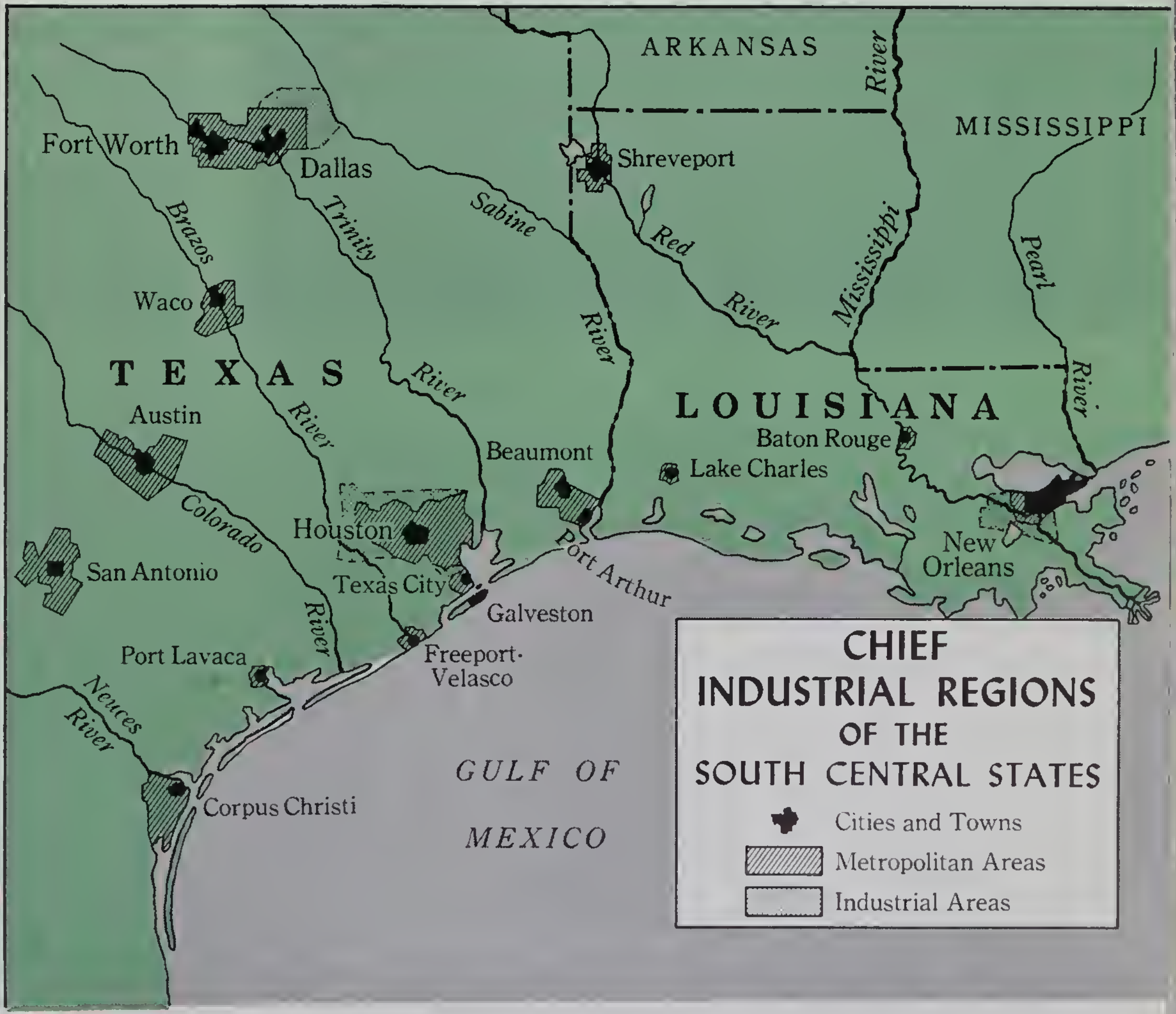
The South Central states stretch from a very rainy region in the eastern part, through less rainy areas in the central portions, to dry lands in the western parts. The four South Central states—Arkansas, Louisiana, Oklahoma, and Texas—are the home of more than sixteen million people. Through this region flows the mighty Mississippi and finds an outlet in the sea. The southern boundary of the region is the shore of the Gulf of Mexico and the Rio Grande. The upper Rio Grande has falls and rapids. Along its middle course, however, during certain times of the year, it is merely a dry river bed because much of its water is used by irrigation projects which supply water to the dry lands farther west.

Living in the cities

Much of the business activity in the cities of the South Central states is connected with oil, for the nation's largest oil fields are in this region. The cities of the South Central states have grown greatly since the discovery and development of these oil fields. Some of the cities, such as Tulsa, were very small before the discovery of oil. Texas is the leading oil state in the nation. (See the industrial region map below.)

Houston, Texas, the largest city in the South Central region, is the headquarters of many oil companies. Houston is a man-made seaport. Once a shallow, slow-moving river connected Houston with Galveston Bay and the Gulf of Mexico. In recent years the river was widened and deepened so that a canal

Study this map of the chief industrial regions of the South Central states. Has this region as many cities and industries as the one shown on page 74?



Shostal

These buildings are in the oldest part of New Orleans, the French Quarter. Note these beautiful balconies, famous for the lacy iron grillwork. Some of these buildings were built when France ruled Louisiana.

stretched across the coastal plain to the city, which is twenty-five miles inland. After the canal was built, Houston became a leading port. Now ocean-going vessels can reach Houston. Ships are loaded with oil for transport to the seaports of the Northeast.

Dallas, Fort Worth, Oklahoma City, Tulsa, Shreveport, and many smaller cities have grown rapidly as a result of oil. Oil refineries, gasoline, gas pipe lines, and important new industries are the result of the "black gold" of this region. (See the map on page 75.)

New Orleans, the great seaport on the Mississippi River, is one of the oldest and largest cities in the South Central states. Founded by the French in 1718, it grew slowly at first. It became a part of the United States at the time of the Louisiana Purchase in 1803. New Orleans spent many millions of dollars building a canal from the river to a large lake near by. Midway in this canal a basin that is 1000 feet square has been dug, where ocean steamers may be turned around. Docks, warehouses, and factories have been built along the canal and the basin.

New Orleans is one of the world's largest cotton markets. Its great docks are crowded with steamships from many foreign countries. Cargoes of bananas, coffee, sugar, kelp, burlap, rubber, and other products are unloaded there. Railroad tracks run right out to the docks so that the products can be loaded directly on railroad cars. Other products are sent up the Mississippi on barges.

New Orleans is a meeting place of the old and the new. Tourists visit the city to see its old French buildings and eat the French cooking for which it is famous. In its mild climate flowers bloom all year round.

Little Rock, the capital of Arkansas, has many farming and mining interests. Bauxite, the ore from which aluminum is made, is mined near by.

MINING IN THE SOUTH CENTRAL STATES

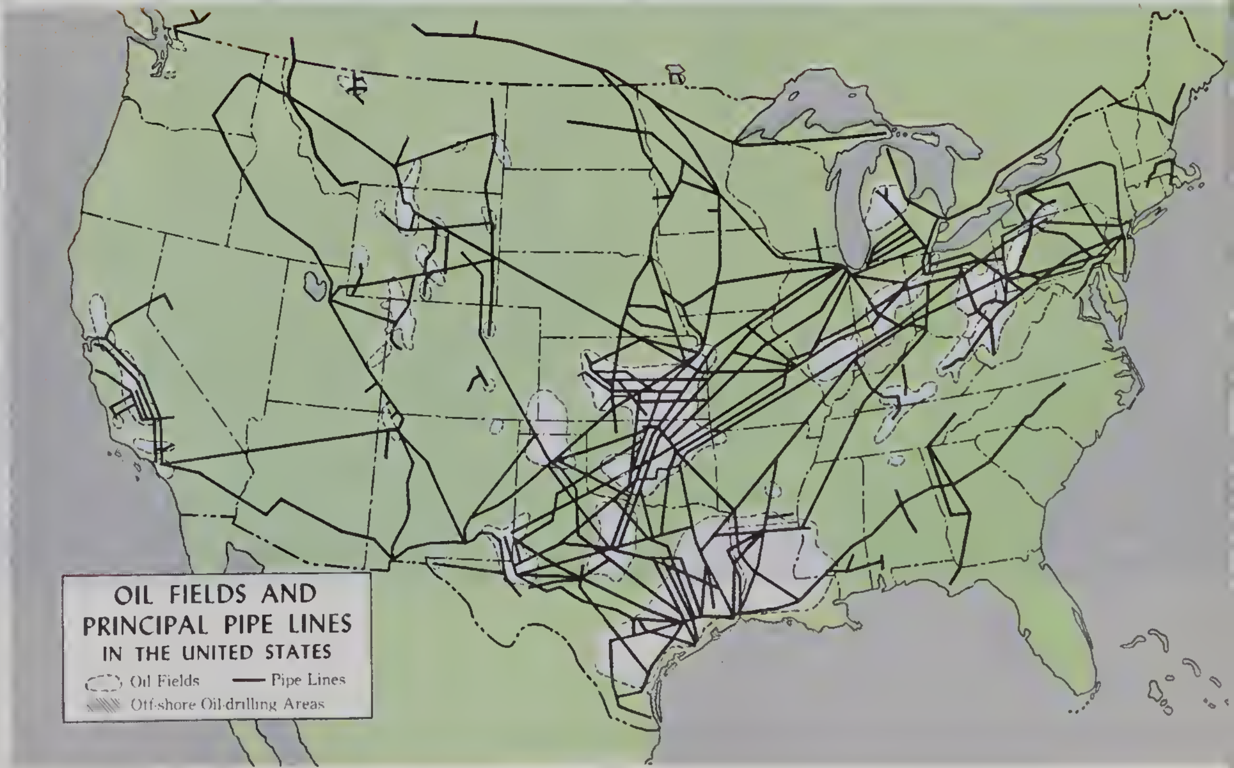
Oil is mined offshore along the Gulf of Mexico, as the picture at the right shows. The derrick is on a platform over the water.

The huge mounds shown below are piles of yellow sulphur. Steam shovels load it into freight cars for shipment to chemical plants.

Freeport Sulphur Company

Cities Service

Oil is one of the nation's most valuable natural resources. Name the states with oil fields. Which have offshore oil-drilling areas? Where are the largest oil fields in our country?


OIL FIELDS AND PRINCIPAL PIPE LINES IN THE UNITED STATES
Oil Fields
Pipe Lines
Off-shore Oil-drilling Areas

The Gulf Coast of Louisiana and Texas has a new chemical industry. Sulphur deposits beneath this coast are used in this industry, for sulphur is important in the manufacture of many chemicals.

Oil, sulphur, and farm products have helped the region to grow rapidly. Today oil is being obtained from areas covered by the waters of the Gulf of Mexico. New oil wells have been drilled from man-made islands, or platforms, built out in the gulf as far as thirty miles from the shore line. (See the map on page 77.)

Living on the land

Many people of the region make a living on farms. Cotton is the principal crop, and Texas is the leading cotton-growing state. Rice is grown in Louisiana, Texas, and Arkansas. Modern machinery cuts the rice, which is handled as if it were wheat. Sugar cane is grown in Louisiana. New Orleans has important sugar refineries.

The wheat lands reach into western Oklahoma and northwestern Texas. These states grow a considerable part of our supply of this important food grain.

The dry western part of Texas, the Gulf Coast, and the southern, narrow portion of the state which reaches toward Mexico are important cattle lands. Ranchers, who live on very large ranches, raise thousands of beef cattle for market. Fort Worth is a meat-packing center because it is close to many of the great cattle ranches. Texas also has many sheep ranches. It is an important supplier of wool.

In the eastern, rainy part of the South Central states—in Arkansas and Louisiana—are forests where many men work in the lumber industry. The marshes at the mouth of the Mississippi River are a great trapping region. Many persons engage in the capture of muskrats and sell the pelts to furriers. Fishermen who live along the gulf supply fish to the people of this section.

Sugar Information Service

Sugar cane thrives in the rich soil and warm, moist climate of Louisiana. Big machines are used in most fields today to harvest this very important crop.

U. S. Department of Interior

The Rockies are a mighty chain of mountains. They extend from northern Alaska almost to the southern border of the United States. The highest and widest part of the Rockies lies in Colorado.

THE ROCKY MOUNTAIN STATES

The eight states of the Rocky Mountain area cover a very large territory. On the north the states of Montana and Idaho share a border with Canada, our northern neighbor. To the south New Mexico and Arizona touch Mexico. The states in between are Wyoming, Nevada, Utah, and Colorado. Some of the grandest scenery in the United States is within the Rocky Mountain states. More than 6,500,000 people live in these eight states.

From east to west the Rocky Mountain states reach from the plains of eastern New Mexico, eastern Colorado, eastern Wyoming, and eastern and central Montana westward across mountains and wide plateaus. Forty peaks in the Rockies of Colorado rise to more than 14,000 feet above sea level. The mountains in Montana are not as high above sea level, but they rise just as high above the neighboring plains.

West of the Rocky Mountains proper are two large plateaus. The Colorado Plateau covers western Colorado, much of eastern Utah, and parts of Arizona and New Mexico. Mountains rise above the level of the plateau. Deep canyons have been cut by the rivers. Another large plateau covers much of western Utah and all of Nevada. Hundreds of small, short mountain ranges rise above this plateau. In some places, lower levels of the plateau are filled with salt-covered flat lands and salt lakes. Find Great Salt Lake on the map, page 81. Its waters are so salty that if five quarts of lake water were allowed to evaporate, one quart of salt would be left.

A region of great contrasts

The Rocky Mountain states have a variety of landscapes. Deserts border irrigated farms and gardens. Forests grow on the sides of the mountains. The mountain tops are covered with snow. The rain and snow that fall on

The splendidly colored rock cliffs in Utah's Bryce Canyon National Park were formed into strange shapes by the combined forces of wind and water.

National Park Service

these mountains provide water for the farm and city dwellers who live in the valleys. Fertile farms are found near dry lands, where there are cattle and sheep ranches. Extensive plains covered with wheat farms stretch for miles. Modern cities rise not far from old Indian pueblos. Old Spanish missions stand beside modern buildings.

Scenic wonders

Many natural wonders and places of scenic beauty are found in the Rocky Mountain states. The government has established national parks in many places to preserve these wonders for all people to enjoy.

Rocky Mountain National Park, in Colorado, has high snow-covered peaks, glaciers, lakes, and waterfalls. Trail Ridge Road, on which people can travel high above the level at which trees will grow, is the longest "high road" in the United States. Stretches of it are more than 12,000 feet above sea level.

Yellowstone National Park, most of which lies in Wyoming, is famous for a fine lake, large waterfall, and hot springs and geysers. Glacier National Park, in Montana, is noted for its glaciers, beautiful lakes, and mountains which resemble the Swiss Alps.

The Grand Canyon of the Colorado River, in Arizona, is one mile deep. It is famous for its great size and the splendid color of its cliffs. A smaller canyon is included in Zion National Park in Utah. Visitors enjoy the gay colors of its cliffs. Near by is Bryce Canyon National Park, with strange rock formations of many shapes.

Carlsbad Caverns National Park in New Mexico contains the largest known cave in the world. One of its underground rooms is a half mile long, 400 feet wide, and 348 feet high. Mesa Verde National Park, in southwestern Colorado, contains cliff dwellings built by Indians of long ago.

Mountains and water

In the Rocky Mountain states the most important problem nearly everywhere is the supply of water. The rain and snow falling on the Rocky Mountains, on the Wasatch Mountains of Utah, and on other mountains are the main sources of water.

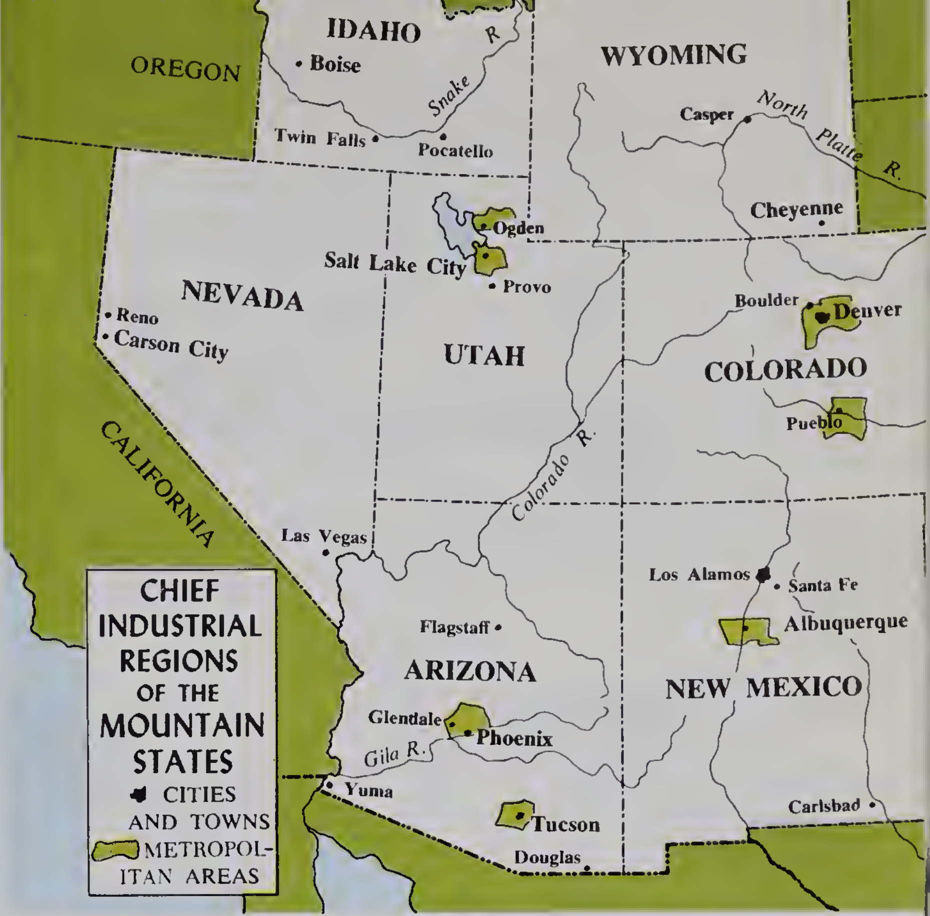
Most of the people of the Rocky Mountain states live close to the mountains or on rivers that lead from them. Denver, known as the mile-high city, is on a plain at the foot of the Rockies. Salt Lake City is at the base of the Wasatch Mountains. The cities of Arizona and New Mexico are located on rivers that flow down from mountains. Reno, Nevada, is on a river that flows from mountains in California.

The fast-flowing rivers in the mountains are dammed and their waters used to irrigate the lowlands. A few large rivers flow from the mountains. The mighty Missouri begins in the northern states of this region. It flows across the plains to the Mississippi. The Snake River flows west from Yellowstone Park to join the Columbia. The Colorado, the Arkansas, and the Rio Grande also gather their waters in the Rockies.

Great dams on some of these larger rivers provide power to generate electricity. Hoover Dam and Hungry Horse Dam are two of the largest. Find these on the map, page 83. Hoover Dam is on the Colorado River between Nevada and Arizona. Electricity generated there is sent by wire to Los Angeles and to other places in California. Lake Mead, back of Hoover Dam, is the world's largest man-made lake.

Living from the soil

Some farming areas in the Rocky Mountain states receive just enough rain to grow wheat without irrigation. But most farms in the region must be irrigated. Water to grow the crops is obtained from streams at the base of the mountains or from rivers that



Which cities are the centers of industrial areas? Name an important product of each.

Irrigation has brought fertility to many areas that were once too dry for profitable farming.

Harvey Caplin

Bureau of Reclamation

Ranches in Montana have fine grazing land for sheep. Notice the brand marks on the sheep.

flow from the mountains. Some farmers have deep wells that furnish water for the crops. Hundreds of cattle and sheep ranches are found in the dry plateaus west of the Rockies and on the plains of Montana.

The people of Colorado, where much of the flat farm land is dry, store water and irrigate their land. Great tracts that were once covered with sagebrush are now thriving farms. Alfalfa, sugar beets, corn, wheat, fruits, and vegetables are important crops. Wheat farms dot northern Montana and the eastern part of Colorado. Montana usually ranks third in wheat production, following Kansas and North Dakota. The Snake River plains of southern Idaho and the areas near Salt Lake City are irrigated. Idaho is noted for its fine potatoes.

Phoenix, Arizona, is the center of an irrigated region. Oranges, lemons, grapefruit, and cotton are grown in southern Arizona. Some valleys have a hot enough climate to produce dates, a tropical fruit.

Living from mining

Mining is important in the Rocky Mountain states. In Nevada more people work in mines than in any other single occupation.

Large copper mines are found in Arizona, New Mexico, Nevada, Utah, and Montana. One great open-pit copper mine near Salt Lake City is more than 2000 feet deep. The deep copper mines of Butte, Montana, are directly beneath the city. Silver, lead, zinc, and gold are produced in every Rocky Mountain state. In recent years important deposits of uranium have been discovered in Colorado, Utah, Arizona, and New Mexico.

Coal is mined in Colorado, New Mexico, Wyoming, Montana, and Utah. Iron ore is mined in Colorado and Utah. Steel is made at Pueblo, Colorado, and in a great plant near Salt Lake City. Trainloads of coal and of iron ore are shipped from Utah to steel mills in California.

New Mexico, Colorado, Wyoming, and Montana are oil-producing states. Natural gas from gas fields in Montana is used to heat buildings in the cities. Many people work in the mines, the smelters, and the refineries of the Rocky Mountain states.

Working in the forests

The largest forest in the Rockies is in western Montana and Idaho. Men are employed in cutting down trees and in the mills where trees are sawed into boards.

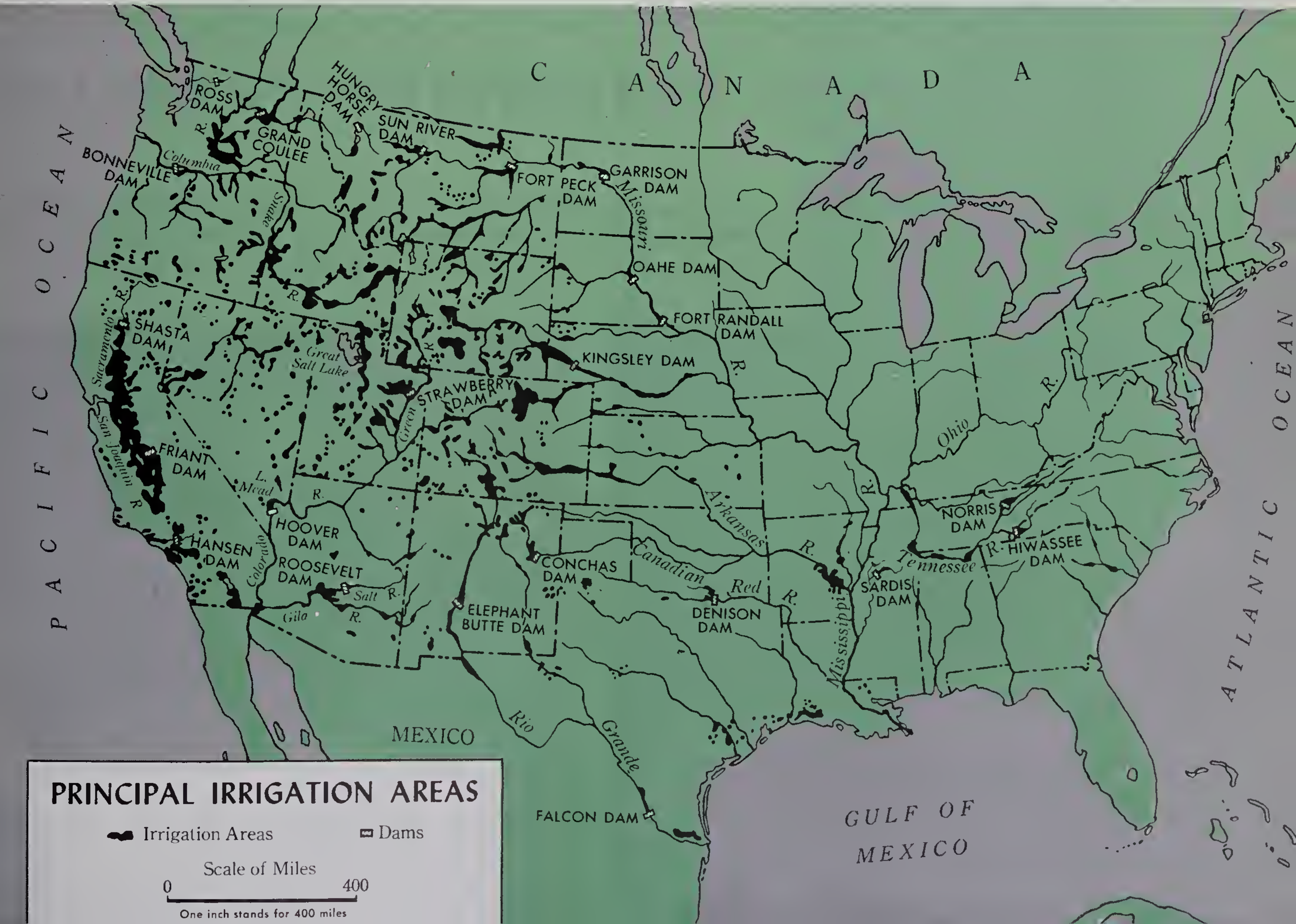
Living in the cities

Denver, Salt Lake City, Phoenix, Albuquerque, and Ogden are the largest cities of the Rocky Mountain states. Fine irrigated farms surround each of these trading centers.

Denver was founded during the gold rush of 1858 and grew rapidly as a mining center. It is now the largest city in the region. It has forestry projects sponsored by the Federal government. Denver also has a United States mint, where coins are made.

Salt Lake City is the center of an irrigated area. It is the headquarters of the Mormons, a large religious group. Its beautiful temple and tabernacle are visited by many tourists.

Dams built on rivers provide much of the water for irrigation in our country. List five large dams in the United States and the river on which each is located. Where is the largest irrigation area?



Ewing Galloway

The San Francisco-Oakland Bridge, shown above, is built across San Francisco Bay. This big suspension bridge is six miles long.

U. S. Bureau of Reclamation

The Grand Coulee Dam, across the Columbia River, provides power and water to irrigate more than one million acres in the Northwest.

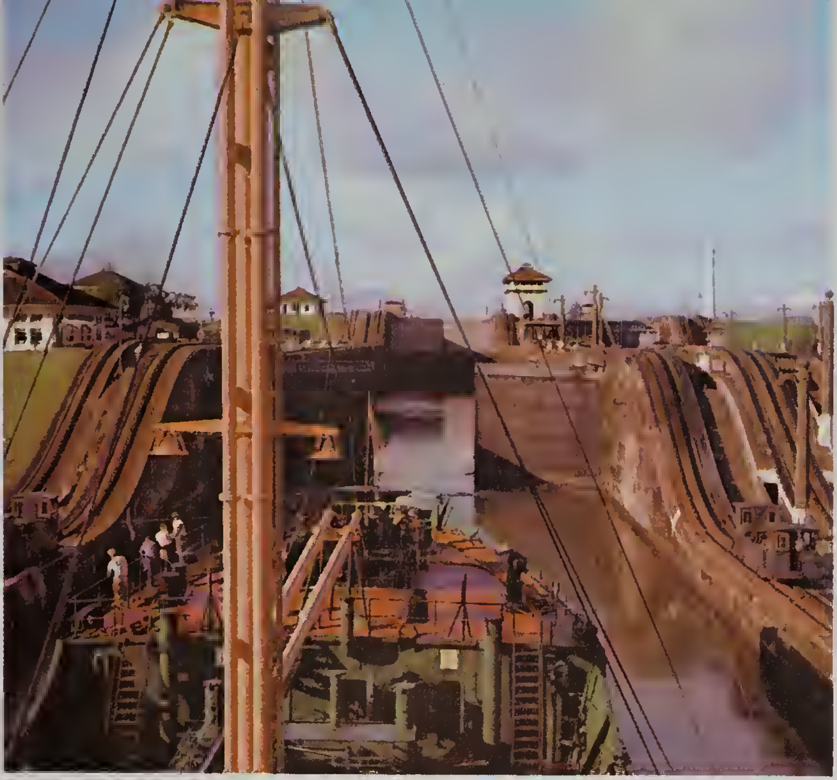
SEVEN ENGINEERING WONDERS

To provide pure water for a great city, Chicago built this sewage system, shown below. It reversed the flow of the river.

Metropolitan Sanitary District of Greater Chicago

The Hoover Dam on the Colorado River is shown below. The world's highest dam, it brings water and power to a large area.

Shostal



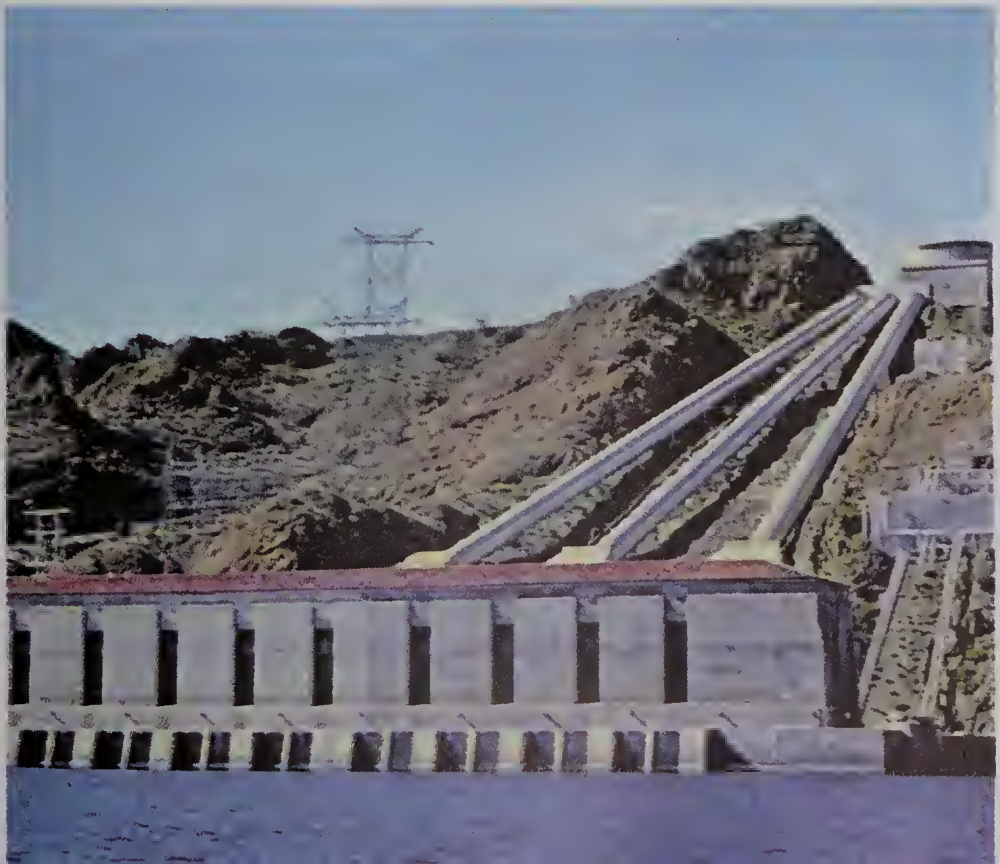
Standard Oil Co., (N.J.)

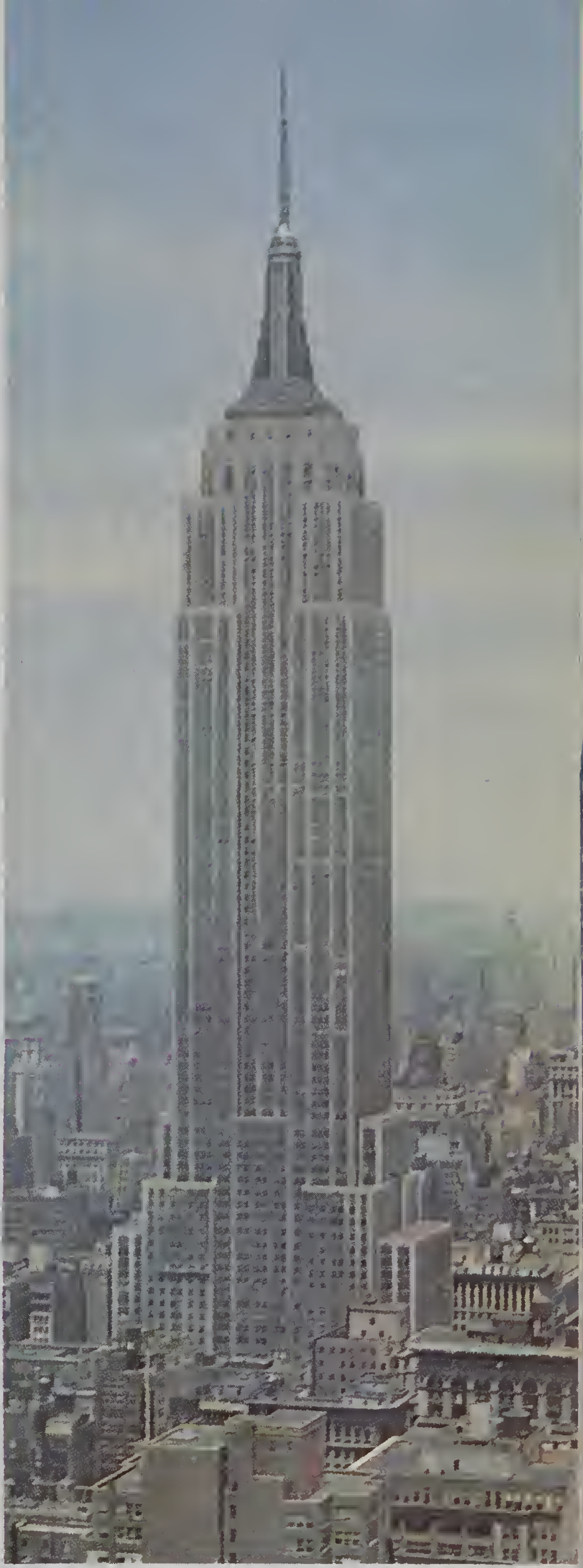
After the Panama Canal was built, connecting the Atlantic and Pacific, ships sailed directly from one ocean to the other instead of around South America.

OF THE UNITED STATES

The Colorado Aqueduct, a part of which is shown below, is a long series of canals and tunnels. It carries water from the Colorado River to Los Angeles, a distance of about 250 miles.

Metropolitan Water District of Southern California





Empire State Building Corporation

Rising high on the New York skyline is the Empire State Building, shown above. It is the world's tallest building.

THE PACIFIC STATES

The five Pacific states are California, Oregon, Washington, Alaska, and Hawaii. About 21,000,000 people live in this area. More than 15,000,000 are Californians.

Alaska and Hawaii are our two newest states. With their admission the United States became a nation of fifty states. Alaska is located in the northwestern part of North America, and Hawaii is an island state in the Pacific Ocean. All five states have coast lines on the Pacific Ocean.

States of great variety

Two mountain ranges and two great flat-floored valleys lie on the Pacific coasts of California, Oregon, and Washington.

The mountains that extend along the Pacific Ocean are the Coast Ranges. These mountains continue across Canada to southeastern Alaska. In California a very high mountain range lies inland. It is the Sierra Nevadas. In Oregon and Washington the inland range is called the Cascades. This range is separate from the Sierra Nevadas. The great valley in California lies between the Coast Ranges and the Sierra Nevadas. It is called the Central Valley. A similar valley, in Oregon and Washington, lies between the Coast Ranges and the Cascades. In Oregon this valley is known as the Willamette Valley. In Washington it is called the Puget Sound Lowland. Puget Sound, an arm of the Pacific Ocean, covers part of the area.

East of the Cascade Mountains, in Washington and Oregon, is the Columbia Plateau. The Columbia River drains this plateau. East of the Sierra Nevadas is the Great Basin and Range Plateau. This plateau also covers Nevada and part of Utah.

The Pacific states have many high mountains. Mount Whitney, in the Sierra Nevadas of California, reaches a height of 14,495 feet. Not far from Mount Whitney is Death Valley, the lowest point on the North American continent. The bottom of this valley is nearly 300 feet below sea level. Mount McKinley, in Alaska, is more than 20,000 feet above sea level. It is the highest mountain in North America. Mount Rainier, in the Cascades, rises to more than 14,400 feet. In Hawaii one mountain reaches more than 13,000 feet.

Scenic wonders

The Pacific states contain many places of scenic beauty. The giant sequoias, or redwoods, of California are the oldest living things on earth. Snow-covered mountains and volcanoes, which no longer erupt, rise high in the Cascades. Beautiful Crater Lake, in Oregon, occupies the bottom of a volcano. The top of the volcano was blown off in ancient times by a mighty eruption. Lava and rock ashes covered the countryside for miles around. Alaska and Hawaii have volcanoes that are still active.

Yosemite Park, in the Sierra Nevadas of California, contains lofty cliffs and high waterfalls. Many visitors go to Yosemite. It is not far from the cities of California. Many tourists visit Sequoia National Park to see its giant trees, its more than 300 lakes, and lofty Mount Whitney. Hawaii National Park also attracts many visitors.

Living in the cities

Los Angeles, San Francisco, Seattle, Portland, and San Diego are the largest cities and seaports on the Pacific coast of the United States mainland.

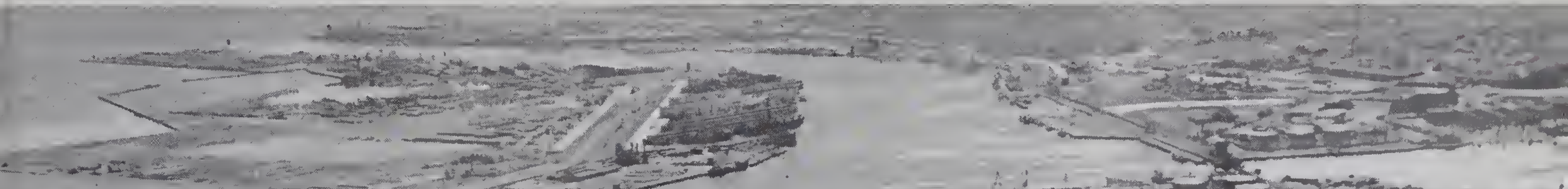
Los Angeles and its suburbs spread over a wide area between the sea and the mountains. Los Angeles was once an inland city. It is now connected with a man-made harbor nearly twenty miles away. Today ships from the Northeast, the Southeast, and from the Far East move in and out of this harbor. The region around Los Angeles is rich in oil. The chief industries of this region are making movies, refining oil, and building airplanes.

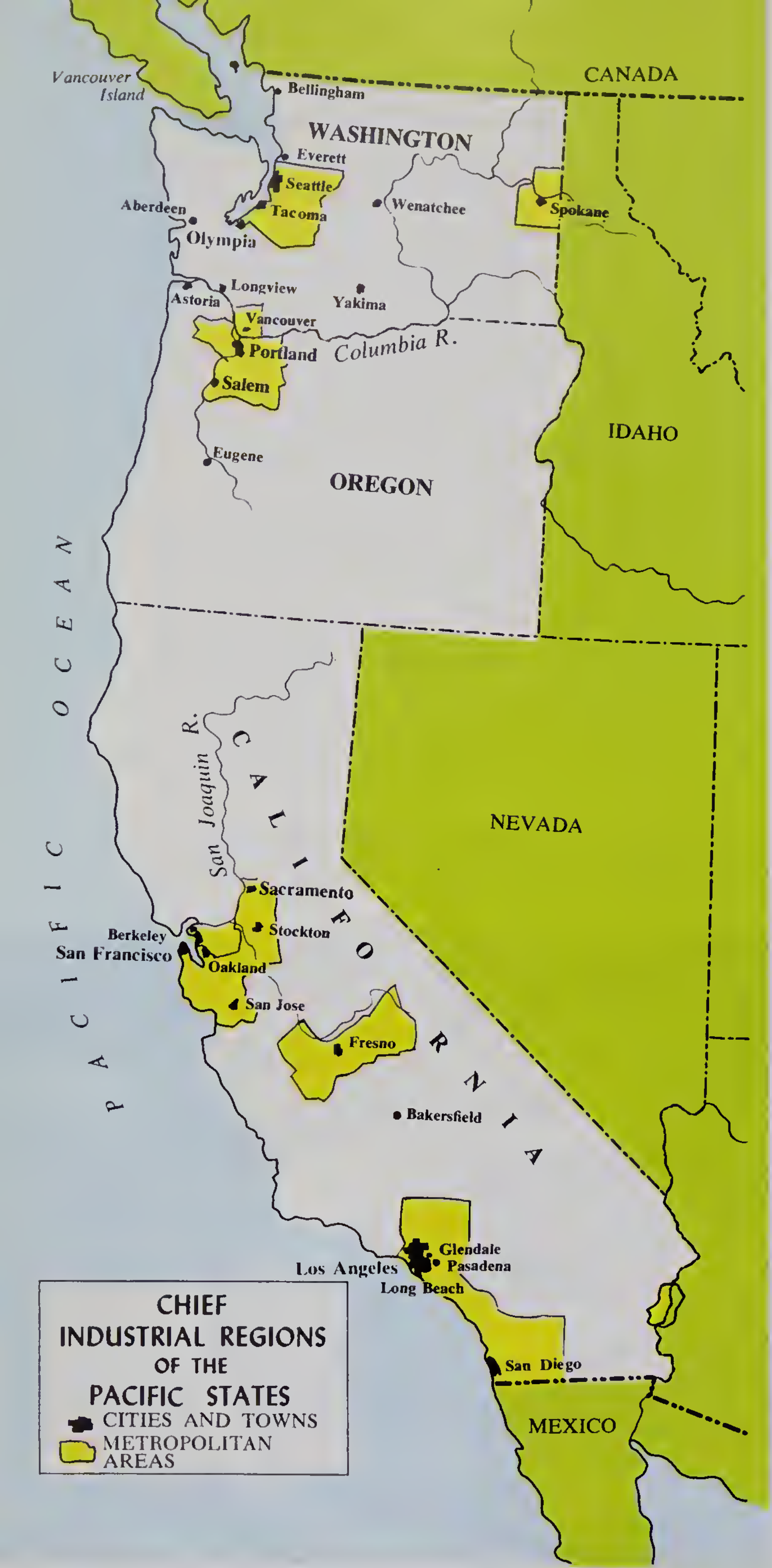
The plain on which Los Angeles is located is separated into several basins, or flat-floored valleys, by low mountain ranges. During the days of Spanish settlement the land was used for ranches. The land around Los Angeles was found to be fine for growing oranges. For many years oranges, other fruits, and vegetables were the chief products of the Los Angeles area. But the city grew rapidly. Houses and factories spread over vegetable fields and orange groves. Today a very large part of the plain is covered by the city and its suburbs. This area is one of the largest metropolitan areas in the United States. Los Angeles has become our third largest city. Beautiful homes have been built in the surrounding hills. What has happened to the orange groves, vineyards, and vegetable farms? Many have disappeared. The land they occupied is now a part of the city. Food for Los Angeles now must be shipped to the metropolitan area from a distance.

San Francisco is located on a point of land between the ocean and San Francisco Bay. From the shore the land rises to a high hill. The first settlers built their houses near the water, but gradually the city spread back and upward over the hills. When gold was first discovered in California in 1848, San

The great harbor of Los Angeles is fifteen miles away from the center of the city. Ships of many nations dock there to unload their cargo and to take on new loads of American products.

Los Angeles Harbor Department





Study this map of the industrial regions of three Pacific states. Around which of the cities have industries grown up? Can you tell why?

Francisco had only 800 inhabitants. Within a year the population was 30,000, with people living in tents and shacks for shelter. The city continued to grow. In 1906 an earthquake, and the fire that followed, destroyed much of it. But the people of San Francisco rebuilt from the ashes.

Today San Francisco is a city of many skyscrapers. To expand, the city must build upward because the peninsula where the business district is located is small. The city is one of the banking centers of the nation. It has many factories, where fruit and vegetables from the farming regions of the state are canned and where sugar is refined.

The harbor is a busy place. Shipbuilding is an important industry there. Ships sailing through the Golden Gate to San Francisco Bay bring cargoes from the Far East, Australia, Hawaii, and our east coast.

Over the great bridges passengers and freight move from the city across the bay to Oakland, Berkeley, and Alameda. Oakland is a manufacturing city and the center for the railroads coming to San Francisco. The bay area has fine homes, streets, and parks.

A cold ocean current flows near San Francisco Bay. This causes fog to rise in the morning and in the evening and keeps the cities around the bay cool in the summer. San Francisco is a summer resort for people from the hot valleys back of the bay. However, it is not cold in winter.

San Francisco and Los Angeles obtain their water in part from the Sierras by bringing it through long pipe lines and ditches. Hoover Dam, on the Colorado River below the Grand Canyon, produces electricity. It also stores water used in irrigating farms in southern Arizona and southeastern California and shipped in pipes and ditches to coastal cities. The government has built many other dams on the rivers. The dams all produce electricity for homes and factories and store water for city use and for irrigation.

San Diego is only a few miles north of the Mexican border. The city is on a large bay, which forms a good harbor. It is an important naval base, and ships of the fleet are often in the harbor. San Diego shares an airplane industry with Los Angeles.

Sacramento, the capital of California, is on the Sacramento River in the Central Valley of the state. The city has many beautiful buildings and parks. Into Sacramento come the products of the surrounding farming and mining region. The city has factories that make use of many of these products.

Stockton is a seaport in the Central Valley. Ships reach it by sailing up a river which leads from San Francisco Bay.

The large cities of Seattle, Tacoma, and Portland are the leading seaports of the Pacific Northwest. Manufacturing in these cities is chiefly concerned with local products, such as lumber, fish, and farm products.

Seattle has large airplane factories. It is also the chief seaport and airport for business to Alaska. Most of the overseas trade is to Japan.

Spokane, the largest city east of the Cascades, is near both the wheat fields of Washington and the forests of Idaho. It has many factories. Much aluminum is made there. The city is a leading rail center.

Living from the soil and the sea

From one hundred miles north of Sacramento the Central Valley extends down through the heart of California. The main highway from Portland, Oregon, to Los Angeles runs through this valley.

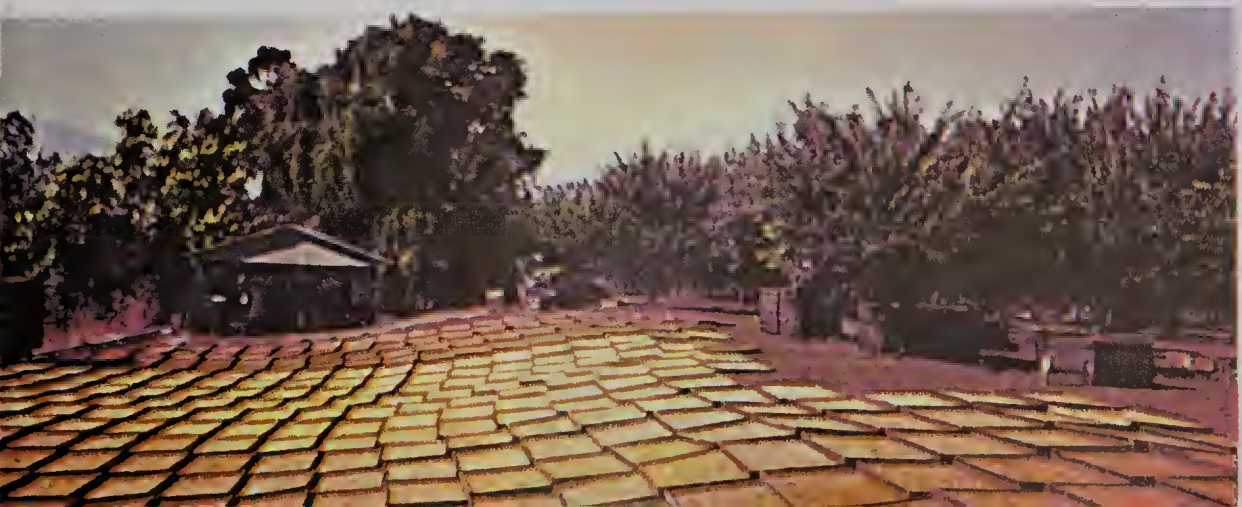
The Central Valley is one of the finest farming regions in the world. Fruit is the great crop. The land is rich and nearly level.

The picture on the right shows fields of lettuce growing in the Imperial Valley in California.

On the far right are trees in a date palm grove in California.

The yellow squares seen below are trays of apricots drying in the sun.

University of California—Agricultural Station



2 photos by Bureau of Reclamation

There is not much rain, but rivers bring water down from the mountains. Dams have been built to catch and hold the water for use in irrigation during the dry months of the summer. Near Sacramento are great fields of rice. Fresno is a grape-growing center.

Imperial Valley, in southeastern California, has the climate of a tropical desert. Water from the Colorado River irrigates bountiful crops in this valley. Vegetables find good markets when shipped to places that are too cold to grow crops during the winter. Some valleys near Imperial Valley grow dates.

The two large flat-floored valleys west of the Cascade Mountains are rainy rather than dry. This is an area of small family-sized farms. Many farmers of the Puget Sound Lowland gain their living by raising dairy cattle. In the Willamette Valley there are many kinds of farms. Some of these grow grain, some berries and tree fruits, and some specialize in dairy cattle.

The valleys at the eastern base of the Cascades are irrigated because they lie in a dry climate. These valleys are noted for their fine apples and other fruits. Washington leads the nation in growing apples.

The eastern part of Washington, on the Columbia Plateau, is a great wheat land. This is a winter wheat region.

Fishing

Fishing is another leading way of making a living in the Pacific states. Thousands of fishermen work in the salmon fisheries off the coast of Alaska and Washington, in the Columbia River, and in Puget Sound. Halibut and other kinds of fish are caught as well. Fleets of fishing vessels are a common summer scene in nearly all waters. Many people work in the fish canneries and in the frozen-food plants.

Fishing is important along the California coast, where many tuna are caught. The fish are canned in San Diego and Los Angeles.

Forests, water power, and minerals

Lumbering is the chief industry of the mountainous sections of Washington and

Oregon State Highway Commission

Tugboats pull logs by the thousands down a river in Oregon to one of the many busy lumber mills in the state. Lumbering and the processing of timber are Oregon's most important industries. Can you name other states which also have large forests and great lumbering industries?

Oregon and northern California. Oregon is our leading lumber state. Giant trees from the interior mountains and the Coast Ranges are sawed into boards and other lumber products at the mills. Many people work in factories using wood products.

The forests of southeastern Alaska supply lumber and pulpwood. As Alaska develops, the lumber industry will increase. Thick forests grow along the coast, where the climate is mild and the rainfall is very heavy. Some places receive as much as 100 inches of rain a year. This is good for forest growth.

The Coast Ranges and the Cascades receive heavy rainfall, too. Rivers provide power for the generating of electricity. The large rivers flowing across the Columbia Plateau are the greatest sources of water power. These rivers are the Snake and the Columbia.

Grand Coulee Dam, on the Columbia River in Washington, is one of the largest dams in the world. This great engineering project was designed and constructed by the United States government. It provides water to irrigate thousands of acres of dry land. Power from Grand Coulee is sent to the cities of the Pacific Northwest over wires to light homes.

California is second only to Texas in its oil production. Its oil fields are found in the southern half of the state. Some are right in Los Angeles and in its suburbs. California is fortunate to possess so much oil, for there is no good coal nearer than Utah.

Gold and other metals are mined in the Sierra Nevadas of California and in Alaska. Each state had gold rushes in the past. Today the river gravels yield gold. Giant dredges scoop up the gravels. The gravels are washed and the heavy gold sinks to the bottom and is obtained. The lighter materials wash away. Gold is obtained, too, by *placer mining.* In placer mining, a machine sends a powerful stream of water into the gravelly hills. The gravels are then washed and the gold is recovered.

Alaska has large coal fields, but only small amounts of coal are mined. Oil has also been discovered in Alaska and fields are being developed there.

Living in Alaska

Alaska covers an area which is one fifth as large as the other forty-nine states. It is a great peninsula that extends from the northwestern part of North America into the Pacific. The United States bought this great northern area from Russia in 1867 for $7,200,000. Before this the Russians had control of Alaska for more than 100 years. It was to them an important source of furs, but they did nothing to develop the land.

The Aleutian Islands, which are a part of Alaska, reach far out through the Pacific toward Asia. On the northwest, Alaska is separated from Asia by Bering Strait. At its narrowest, this strait is only a little more than fifty miles wide. Two islands in the middle of the strait are just one mile and a half apart. One island belongs to the Russians, the other to the United States.

Alaska is reached by sea, by air, or by road. The sea and the air routes to Alaska start in Seattle. For this reason, Seattle is the trading center for Alaska.

The Alaska Highway is the automobile road to the new state. The United States and Canada worked together to build this road. In Canada the road is east of the Rocky Mountains. Then, far north, it bends westward to Alaska. It avoids the highest mountains. The Alaska Highway can be reached from Spokane. The highway proper begins

Tom Day from USDA

This farmer in the Matanuska River valley of Alaska is harvesting his crop of barley.

Tom Day from USDA

The photograph above shows some of the tall evergreen trees that cover parts of Alaska.

at Edmonton, in Canada. Find these places on the map.

The Coast Ranges extend along the coast of southeastern Alaska. Juneau, the capital, and Sitka are two cities on the shore below these mountains. Farther north the high snow-covered Alaska Range is a short distance inland. Valleys extend from the mountains to the seacoast. Anchorage, the largest city of Alaska, is a port where one of these broad valleys reaches the seacoast. Seward is another city on the coast.

The interior of Alaska is a vast area drained by the great Yukon River. The Yukon is navigable during the summers. The city of Fairbanks is located on a tributary of the Yukon. The forests of the coastal region continue into the interior. But northward the trees become fewer. The far north is a tundra, covered with mosses and lichens.

When gold was found in Alaska in 1896, many persons flocked into the region. Some of them stayed as settlers. Alaska's population increased greatly after World War II. The airplane has helped to develop Alaska and has brought it into closer contact with the rest of the country.

About 225,000 people live in Alaska. This number does not include the United States soldiers, sailors, and air men who are stationed there for a time. Most of the people live in southern Alaska, along or near the shore of the Pacific Ocean.

The people of Alaska work in the salmon fisheries, the lumber industry, and mines. A few engage in farming. Fur seals are captured on the Pribilof Islands in Bering Sea.

Living in Hawaii

The beautiful Hawaiian Islands make up our newest state. Find these islands on the maps on pages 44 and 61. Most of these islands lie in the tropics. In climate, vegetation, and crops it differs from the other forty-nine states. Sugar cane and pineapples are the chief plantation crops of the state.

The twenty islands of the Hawaiian group cover an area of 6439 square miles. This is the size of Connecticut and Rhode Island together. The largest island is called Hawaii. Oahu is the most populous island.

About 600,000 people live in the state of Hawaii. In addition many persons employed in the armed forces of the United States live there. Seventeen of every twenty Hawaiians live on the island of Oahu.

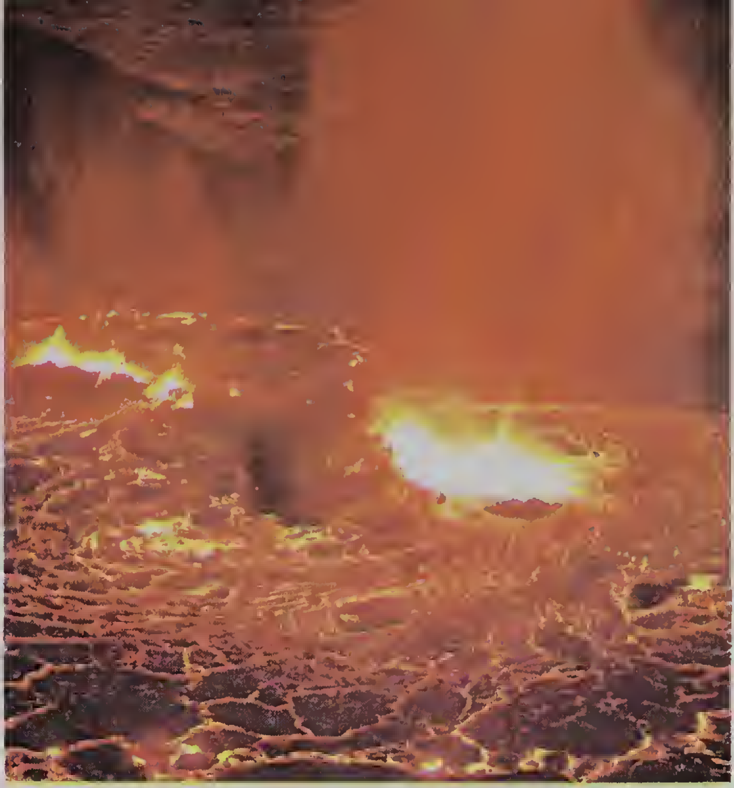
The seven inhabited Hawaiian Islands are Niihau, Kauai, Oahu, Molokai, Lanai, Maui, and Hawaii. They are volcanic islands. The volcanoes no longer erupt except for two on the island of Hawaii.

The islands rise to different levels above the sea. Maui rises to more than 10,000 feet. On Hawaii one volcano rises to more than 13,000 feet above sea level. The base of the volcano, on the floor of the sea, is nearly 13,000 feet below the surface of the ocean. Thus the whole volcano rises nearly 26,000 feet from the ocean floor, but only the top half is above water.

Captain Cook, a famous English explorer, discovered Hawaii in 1778. The inhabitants were Polynesians, island peoples of the Pacific. We will learn more about the Polynesians in a unit later in this book. Today the Polynesians have practically disappeared in Hawaii. They have married settlers who have come to the islands.

Hawaii was a kingdom for many years. Whaling ships in the Pacific called at the islands. Missionaries from New England settled there. Ships on their way to Asia called there. Sometimes sailors and other passengers left the ships and settled in the beautiful islands. By the 1850's men from the United States and from England had started businesses in Hawaii. They built stores and plantations on the islands.

The plantations needed workers. The Hawaiians did not like plantation work.



Melvin J. Horst from Shostal

This boiling lava field on Kilauea, one of the few Hawaiian volcanoes which are still active, is called the "pit of eternal fire." It is one of the world's largest active craters.

The mountains shown in the picture below are on Oahu, the largest of the Hawaiian Islands. Oahu has two principal mountain ranges, but it has no active volcanoes today.

Ewing Krainin

The number of people had declined, too, from 300,000 to 82,000. The planters brought men from elsewhere to work in the sugar-cane fields. They imported Chinese, Japanese, Korean, Portuguese, Puerto Rican, and Filipino workers. By 1896, 46,000 Chinese and 180,000 Japanese had arrived in Hawaii. Some of these workers brought their families. Others married Polynesians in Hawaii.

In the 1890's a queen came to the throne of the Hawaiian kingdom. Because she wanted to gain more power, she took away many of the rights of the people. When they complained, she would not listen. Some of the leaders decided that they wanted another kind of government. They rebelled and set up a republic. The people who had moved to Hawaii from the United States thought it would be a good thing if the islands could be made a part of our country.

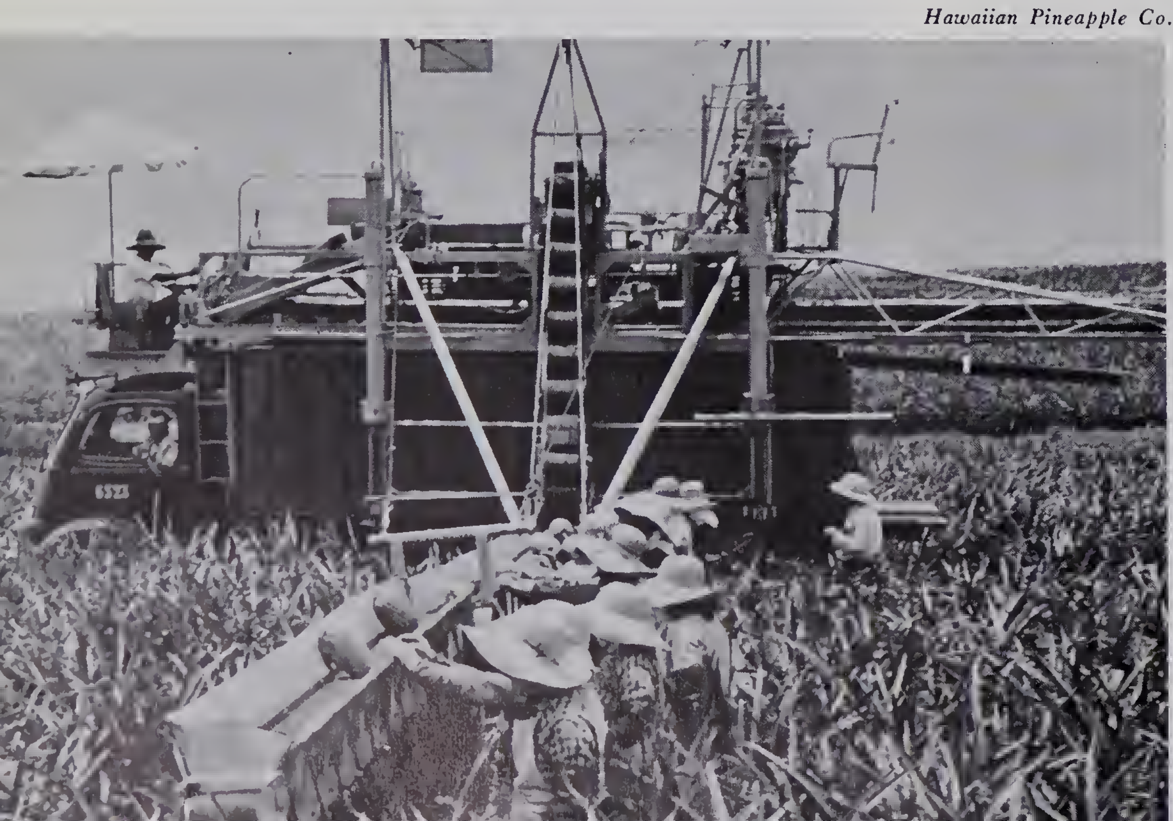
The Hawaiian leaders who opposed the queen asked that Hawaii be made a part of the United States. But when the United States government learned that the matter had not been discussed with the Hawaiian people, it refused the request.

A few years later, during the Spanish-American War, the Hawaiian people asked to join the United States. Under these conditions the United States government agreed. In 1898 the islands became a part of the United States and were organized as the Territory of Hawaii in 1900. As you know, the territory became a state in 1959.

The people of the state are of many races and creeds. They are all good Americans. More than half are of Far-Eastern ancestry. About one fourth are Caucasians. The rest are part Hawaiian. Part-Hawaiian people may be Caucasian-Hawaiian or Oriental-Hawaiian, or they may have ancestors from many places. People are very proud of their Hawaiian blood. The first member of the House of Representatives in Congress from Hawaii is of Japanese ancestry. One of the Senators is of Chinese ancestry.

The Hawaiian Islands are in the same latitude as Cuba and grow the same crops as Cuba does. The plantations specialize in sugar cane and in pineapples. There is a good market for these on the United States mainland. Hawaii produces more than one million tons of sugar a year, and grows more

Hawaiian Pineapple Co.



On this large pineapple plantation in Hawaii the fruit is harvested with the help of a mechanical loader. Workers cut the pineapples off the plants and place them on the conveyor belt, which takes them to waiting trucks.

Hawaiian Pineapple Co.

From Honolulu's harbor, shown here, you can see Diamond Head, a volcano that no longer erupts.

than four fifths of all the pineapples grown in the world. The sugar mills send raw sugar to sugar refineries on the mainland. The pineapples are canned in Hawaii. The entire island of Lanai is one large pineapple plantation. The pineapples are sent by boat from Lanai to Honolulu, where they are canned.

The sugar plantations are either on the rainy sides of the islands or are irrigated on the dry sides. Pineapple plantations are not irrigated. Why are there wet and dry sides? The islands are in the belt of the northeast trade winds. Rain falls as the trade winds rise to go over the coastal mountains, causing wet and dry sides on the islands.

Hawaii has large cattle ranches. One of these ranches is the second largest ranch in the United States. Coffee is grown on the western side of the island of Hawaii.

Honolulu, the capital, is built on a good harbor on Oahu. It has grown from the harbor back into the mountains, and along the shore to and beyond Diamond Head. Diamond Head, a small volcano, is the first landmark seen by travelers arriving in Oahu either by sea or by air. Suburbs of Honolulu lie across the mountains on the opposite shore of Oahu. Tunnels through the mountains, and a pass over them, carry automobile traffic from the city to its suburbs.

Hilo is the chief city of the island of Hawaii. It has about 30,000 people. Gardeners near Hilo grow many orchids. The orchids are sent by air to florists on the mainland.

Pearl Harbor, the chief United States naval base in the Pacific, is six miles west of Honolulu. Pearl Harbor is completely surrounded by land except for a narrow channel. The channel was dredged to permit ships easily to enter the harbor.

The entertainment of tourists has become an important business in the Hawaiian Islands. The volcanoes on the island of Hawaii attract many visitors. Honolulu is also a favorite spot for tourists. The visitors arrive by ships and planes to enjoy the beautiful scenery and the tropical vegetation.

The sandy beach of Waikiki lies along part of Honolulu's shore. Hotels and roadways line the beach. The waves break into white and foamy surf as they roll toward the shore. Surfboard riding is a famous sport. The riders become so expert that they can stand erect on the surfboards as the large waves carry them to the beach.

Honolulu's airports are very busy. Some planes from Asia and Australia stop at Honolulu. Most of the planes that serve Hawaii, however, come from the mainland. Many planes also fly from island to island.

The people of Hawaii observe many ancient Polynesian customs. They love the native Polynesian music and dancing. They also have special ways to serve food.

Visitors to Hawaii are greeted on arrival by having a wreath of flowers placed around their necks. As they depart, they hear the hauntingly beautiful strains of the Hawaiian good-by song, "Aloha Oe." Even though English is spoken and many customs are like those of the mainland, visitors to our newest state often feel that they are in an excitingly different country.

Do you know—

1. Into what six regions may the United States be divided?
2. What is the largest city in each region? What conditions caused each city to grow?
3. What are some of the products of each region? Name three.
4. In what ways can a person travel to Alaska? To Hawaii?
5. What are some of the scenic wonders of the United States?

Words and Terms to Remember

rural
subway
turbine
generator
suburban
placer mining
metropolitan area
cultural center
urban center

A Matching Game

The phrases below explain the words or terms listed above. Number a paper from 1 through 9. After each number write the word or term which matches the definition.

1. A large or small city
2. An underground electric train or the tunnel through which the train runs
3. A city whose people enjoy such advantages as art museums, theaters, libraries, and concert halls
4. An engine whose wheels are turned by the pressure of water, steam, or air
5. A thickly built up region where cities reach out and touch or almost touch each other
6. Surrounding or located just outside a city, especially having to do with a residential area
7. A machine that changes the energy gained from falling water or from steam power into electricity
8. Situated in the country, entirely away from a city
9. Mining of deposits of minerals found in gravelly hills by shooting water forcefully into them

Hunter from Shostal

Canada's Parliament meets in Ottawa, the capital. Like our Congress, it makes laws for the whole country. Some members speak English and others French, but all are loyal Canadians.

2. A QUICK TRIP ACROSS CANADA

Canada is a vast land. From east to west it reaches from the island of Newfoundland in the Atlantic Ocean to Vancouver Island in the Pacific—a distance of 4000 miles. It reaches from the Arctic Ocean on the north to the United States on the south, as you see on the map on page 104. Canada is larger in area than the United States, but its population, which is about 18,000,000, is one tenth that of our nation.

HISTORY AND GOVERNMENT

The first European explorers to reach the eastern shores of Canada were the vikings. But they left no traces of their visit. Nor did the reports of a visit to this land cause any excitement among other would-be explorers. Canada had been discovered, but it was more than 500 years before more explorers from Europe came.

Canada in the early days

The first settlement in Canada was made by the French at Quebec in 1608. The French soon made other settlements at Montreal and in the lands along the Atlantic. Quebec had a good location on a cliff on the St. Lawrence River. It was for many years the most important city in New France, as the eastern area of Canada was then called.

But the English also had a claim to the area. In 1497 John Cabot, sailing for England, discovered the eastern shores of what is now Canada. The English sent other explorers. Later they also made settlements near the Atlantic. As time went on, the power of the English grew. In 1713 the British captured the French settlements in what are now Nova Scotia and New Brunswick. Then in 1759, after a long siege, they took Quebec. They soon ruled all New France.

How Canada became independent

Canada became an independent nation in 1867. At that time it was composed only of four provinces, or states. These were Nova Scotia, New Brunswick, Quebec, and Ontario. Canada did not go to war to gain its freedom. Instead it became independent by agreement with the mother country. After 1867 the other provinces, one by one, joined Canada. Like its neighbor to the south, the United States, Canada also expanded rapidly and soon its territory reached from ocean to ocean.

Because of the history of settlement, French is spoken by the natives of the province of Quebec. The people in the rest of Canada use English.

How Canada is governed

Canada is made up of ten provinces and two territories. It has a *parliament,* which is much like our Congress, an army, a navy, and an air force. The head of the Canadian government is called the *prime minister.* The government of Canada sends an *ambassador* to the United States, and our government sends one to Canada. An ambassador is a high official who is sent by his government to represent it in another country.

Canada is a member of the Commonwealth of Nations. This is a group of nations made up of lands that were once a part of the British empire. But Canada, like the other commonwealth nations, belongs to the Commonwealth by its own choice. These nations are joined by ties of trade and other matters of common interest. The queen of Great Britain is also the queen of Canada. Since the queen lives in England, a *governor general,* appointed by the queen, acts as her representative in Canada. Ottawa is the capital of Canada.

For the purposes of our study, Canada may be divided into the Atlantic Provinces, the St. Lawrence Lowland, the Prairie Provinces, British Columbia, and the Far North. In our trip across Canada we will see that Canada is much like the United States. In the East there are fishing and farming communities and a large industrial area. West of that are wide lowlands and plains, farming areas, then a mountainous region of mines and forests, and finally a narrow coast with fisheries and little industry. Let us look at these areas one by one.

THE ATLANTIC PROVINCES

The Atlantic Provinces are Newfoundland, Prince Edward Island, Nova Scotia, and New Brunswick. Find them on the map on page 104. Working in the fisheries, the forests, and on farms are the chief ways of making a living in these provinces. Mining is important in certain places. A million and a half people live in these provinces.

Newfoundland is Canada's newest province. When Canada became a nation, Newfoundland chose to remain a colony of Great Britain. It did not join Canada until 1949. Newfoundland is an island, but the province has an area on the mainland called Labrador. St. John's is the capital of Newfoundland.

Prince Edward Island, Canada's smallest province, is half the size of Connecticut. Charlottetown is its capital.

Nova Scotia is a peninsula. It is about as large as West Virginia. Halifax, a city of nearly 100,000 inhabitants, is its capital. Halifax is also the largest city in the Atlantic Provinces.

The province of New Brunswick lies just northeast of our state of Maine. Fredericton is the capital. New Brunswick is not quite as large as South Carolina.

Canadian Pacific Railway Company

Many places in Nova Scotia, one of the Atlantic Provinces of Canada, look like this today. These fishing wharves are located at Peggy's Cove. Nova Scotia has many visitors each year.

Fishing and lumbering

The people of Newfoundland make their living almost entirely through the direct use of natural resources. They fish, and they work in forests. The world-famous Grand Bank of Newfoundland is a region of shallow waters in the Atlantic that teems with fish. Fishermen from the island are joined on the fishing grounds by fishermen from New England, from Nova Scotia, and even from Europe. Cod are the chief fish along these rocky coasts. After the fish are caught, they are cleaned and laid on pine branches spread out on the sandy beaches. In the sun and wind the fish become as hard as boards and will keep almost indefinitely. In this form they may easily be shipped to markets near and far.

Much of Newfoundland is covered by forests of spruce and fir. The soft wood of these trees is excellent for the making of wood pulp, from which paper is made. Large pulp and paper mills are found in this province. Its rivers furnish water power.

Nova Scotia also has important fisheries. The interior of the peninsula of Nova Scotia and the northern parts of New Brunswick are covered with great forests. Many people in these two provinces make a living by fishing and lumbering.

Farming and mining

Prince Edward Island, the coastal parts of Nova Scotia, and southern New Brunswick are good farming lands. The summers in these provinces are too cool for many kinds of crops to be raised there. But hay, some kinds of fruit, and potatoes grow well. Most farmers specialize in dairying. They sell their milk to factories which make butter and cheese for export to Great Britain. New Brunswick raises many potatoes. The potato fields of this province join our important potato-growing lands in northern Maine. Nova Scotia has fine apple orchards. Much of Nova Scotia's apple crop is shipped to markets in the British Isles.

Newfoundland has large iron mines near the sea. But the island has no coal for use in the smelting of the iron ore. So the ore is shipped by water to England, to steel mills on the east coast of the United States, and to Nova Scotia. You can see why the steel mills have been built near the coal fields of Nova Scotia. Nova Scotia also ships coal by water to Quebec and other Canadian cities by way of the Atlantic Ocean and the St. Lawrence River.

Halifax is an important seaport during the winter, when the St. Lawrence River is frozen over and ships cannot reach Quebec and Montreal. In winter the seaport of Saint John, New Brunswick, is also busy. During the cold weather cargoes are brought to these ice-free ports and then shipped by rail.

Tourist lands

The Atlantic Provinces are a favorite area for tourists during the summer. Visitors arrive from other parts of Canada and from the United States to enjoy the cool, pleasant weather and the fine scenery.

Newfoundland has a great airport at Gander, on the eastern end of the island. At Gander airplanes that fly across the Atlantic Ocean stop to take on fuel and for repairs. Some people earn a living by servicing airplanes at Gander and by caring for tourists.

THE ST. LAWRENCE LOWLAND

The St. Lawrence Lowland is the heart of Canada. Ten million people, or two out of every three persons in the nation, live on the lowland. Find it on the map on page 104.

The St. Lawrence River valley proper is mainly in the province of Quebec. The plain which lies north of Lakes Erie and Ontario and extends westward to Lake Huron is in Ontario. The rivers of this area flow into the St. Lawrence River or into the Great Lakes, which drain into the St. Lawrence. Nearly all the inhabitants of the two provinces live in the St. Lawrence Valley or on the plain in Ontario. Seven of Canada's largest cities are in this region.

Ways of living

Many people of the St. Lawrence Valley, which was first settled by the French, speak French and continue to follow old French customs. That is, the descendants of the French settlers are still French in their ways of living. They cook French foods. In rural regions they bake bread in outdoor ovens. Many of the farmhouses are built in the style of cottages in northern France.

City houses are often built with outdoor stairways to the upper floors. Many city dwellers in Quebec use English in their business dealings but speak French at home and in social gatherings. They attend the Catholic Church, as their ancestors did in France. A large church is the outstanding feature of each French-Canadian village.

Most of the settlers on the plain in Ontario came from the British Isles. A large number of persons who were loyal to Great Britain left the United States as a result of the American Revolution. Many of them became pioneers in what is now Ontario. Later, groups of people from the Atlantic Provinces moved to the region. Many persons in this part of Canada belong to the Church of England just as their ancestors did. Most other Canadians are members of the United Church of Canada.

THREE CANADIAN CITIES

On the right is the port of St. John, the largest city in New Brunswick. Located on the Bay of Fundy, this port is ice free. It can be used by large ocean liners throughout the entire year.

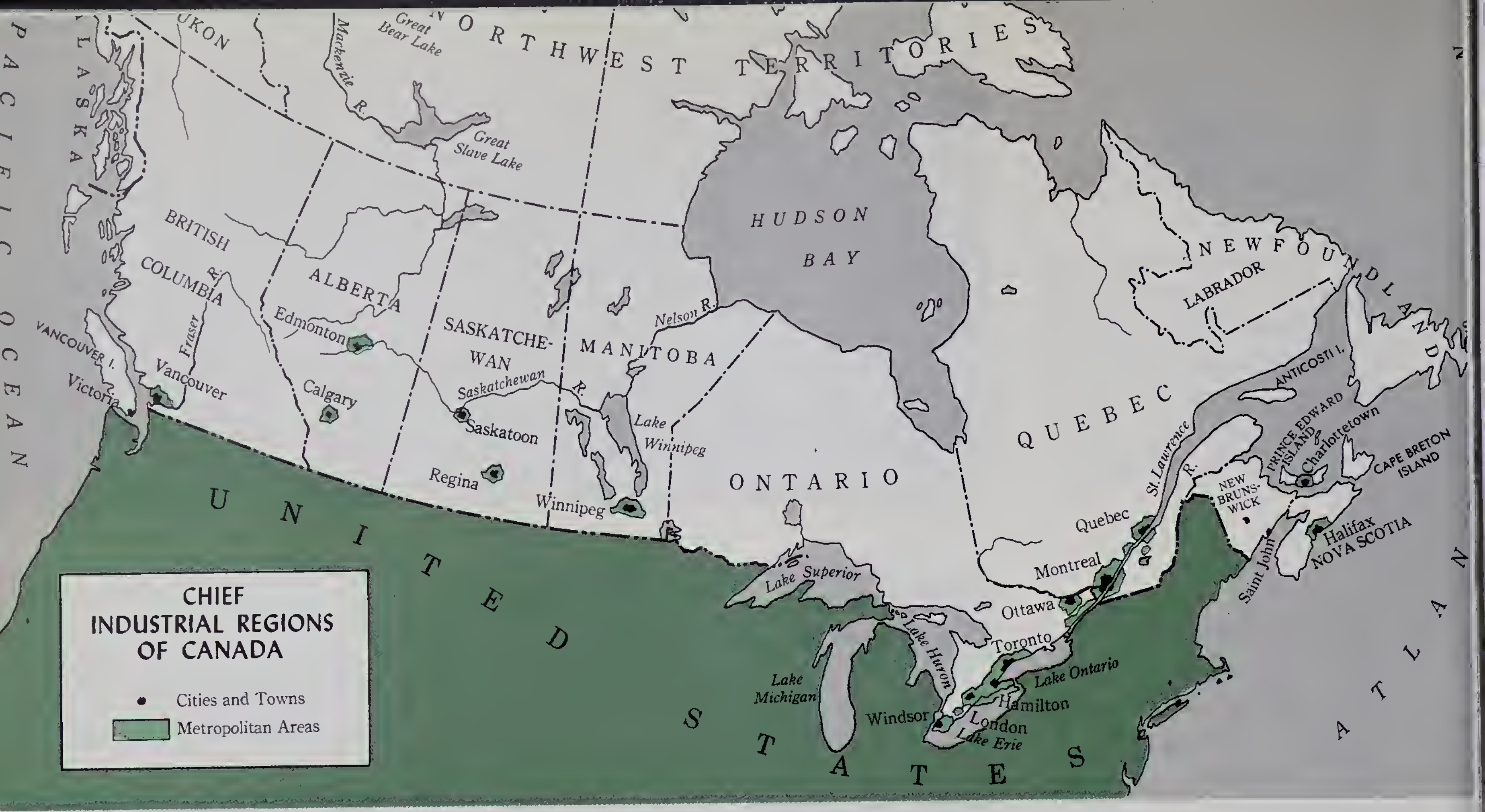
A. Devaney

Montreal, on the right, is Canada's largest city. On the banks of what river is the city built? In what province is it located?

G. Hunter from Shostal

Quebec, shown on the right, is built on two levels, Upper Town and Lower Town. The tall building in the center is a hotel.

A. Devaney



Where is Canada's greatest industrial area? Can you tell why? What other areas have industries?

Living in the cities

Quebec and Montreal are the two most important cities on the St. Lawrence River. Quebec is almost as large as Grand Rapids, Michigan. Montreal is somewhat larger than Baltimore. The cities of Quebec and Montreal are both in Quebec province.

Quebec, the capital of the province of Quebec, is a port on the St. Lawrence River. It can be reached by the largest ocean ships in the summer. During the winter, however, the river is closed by ice.

The city of Quebec is built in two parts. One part is high up on a great cliff. It is called Upper Town. This part of the city has many old French churches. It also has many business buildings and offices. In the center of Upper Town is a hotel that looks like a castle. It is the Chateau Frontenac. An old gray wall surrounds Upper Town. Inside the wall stood the fort toward which the British fired cannon balls during the long siege of Quebec.

Below, near the water's edge, is the part of Quebec called Lower Town. Its narrow cobblestone streets, little houses crowded together, and its old churches remind the traveler of France.

Quebec, though on the soil of North America, is in many ways a French city. The spoken words in motion pictures, radio, and television programs are in French. Restaurant menus and newspapers are printed in French. Other signs of old France are seen in the dresses of the nuns, the robes of the priests, and the high two-wheeled carts moving through the narrow streets.

Southwest of Quebec is Three Rivers, another old city on the St. Lawrence. Today it is important as a paper-manufacturing city, as are many other towns along the St. Lawrence. The paper mills use the wood from spruce and fir trees brought down the river from forests to the north. Some of these forests are hundreds of miles away in central and northern Quebec and Ontario. These mills manufacture paper for newspapers. Such paper is called *newsprint*.

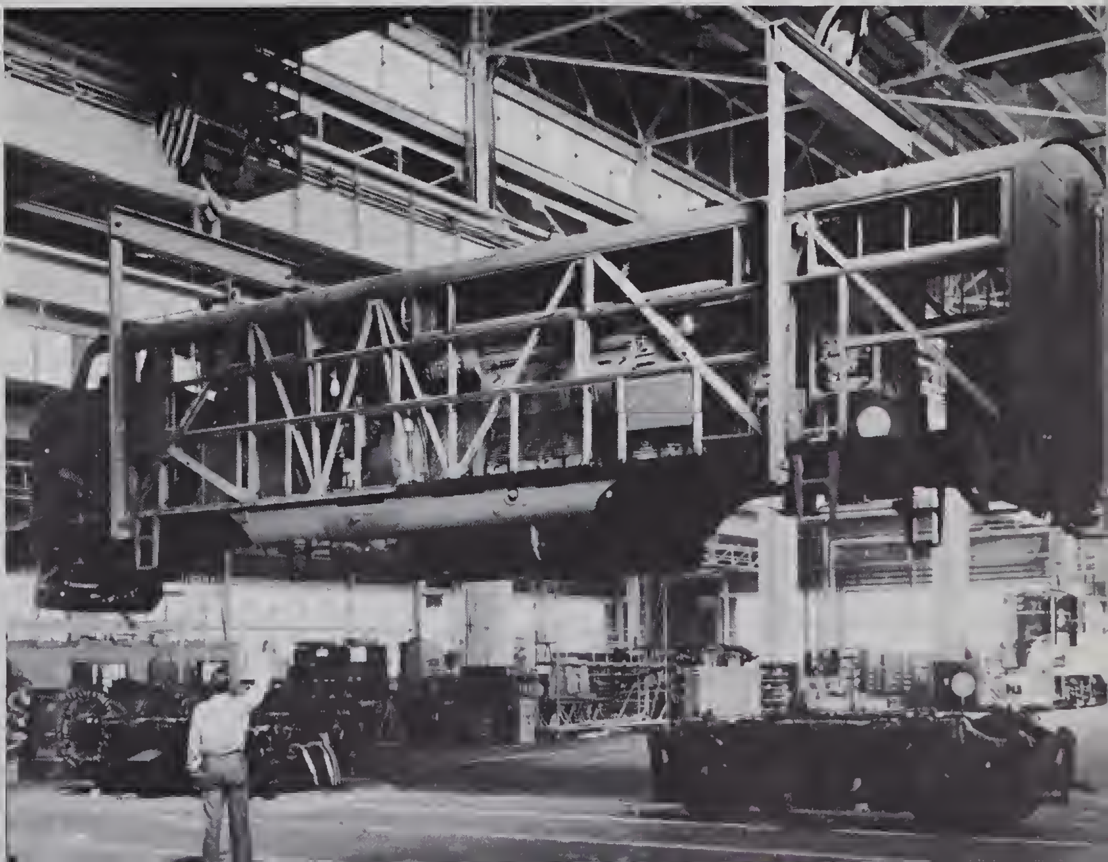
Montreal is Canada's largest city, chief seaport, and leading banking and manufacturing center. Almost every kind of manufactured product is made in the city and its suburbs. Large new oil refineries receive the oil they process from overseas and from the United States. The city has huge flour mills, great stockyards, and large meat-packing plants. The metropolitan area of Montreal covers much of the island on which the city is built. The city, which is 1000 miles from the open Atlantic, is the largest seaport in the country.

Several large and many small cities are found on the St. Lawrence Lowland in the province of Ontario. One of these is Ottawa, the capital of Canada. It has fine government buildings and beautiful homes. Ottawa also has important paper, lumber, and box industries.

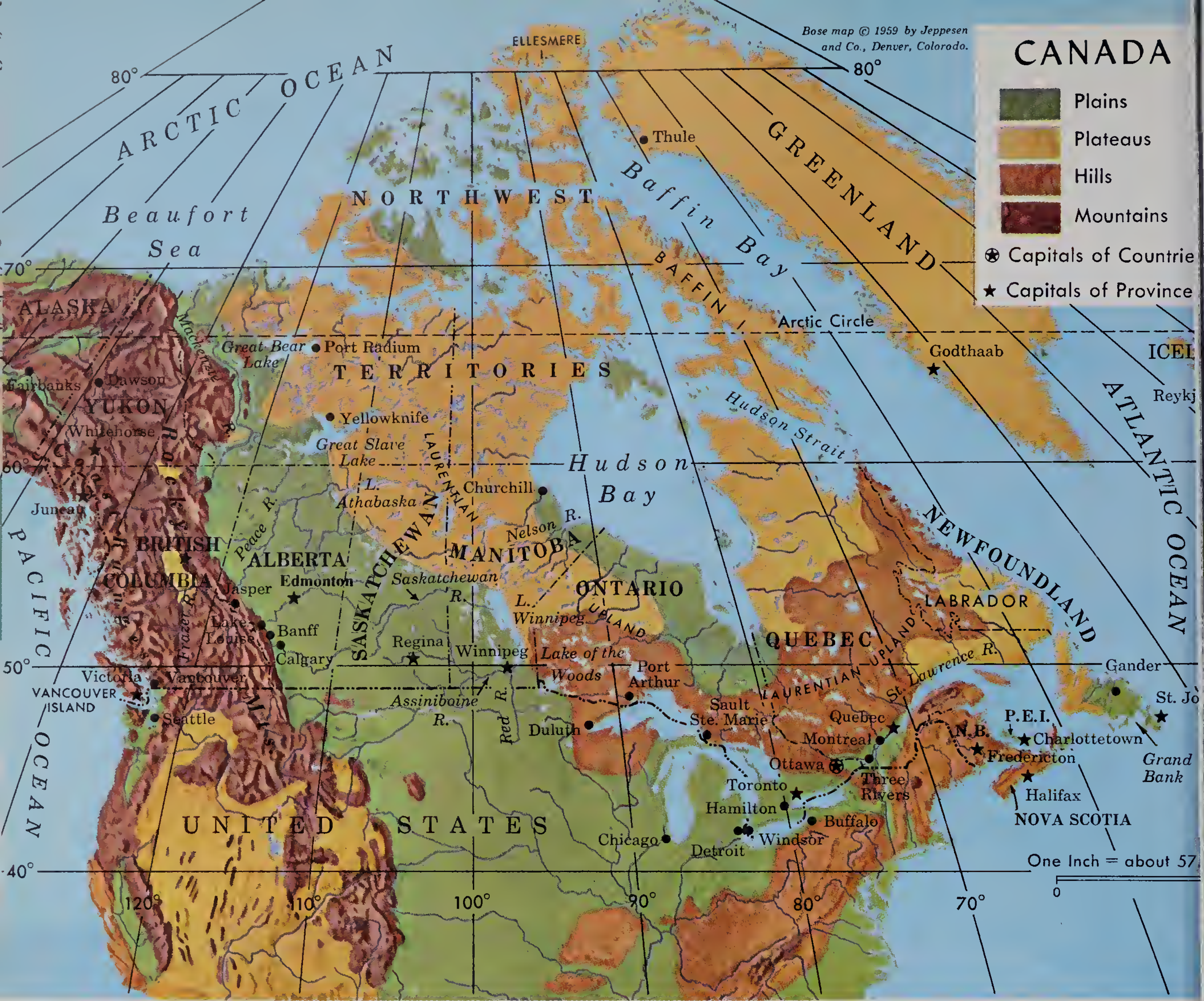
Toronto, the chief city and capital of Ontario, lies on the north shore of Lake Ontario. The city and its suburbs have nearly a million people, making it Canada's second city in size. Its tall buildings give it an interesting skyline. Toronto is a great transportation center and manufacturing city. There are several reasons why Toronto has grown to its present importance. It has a fine harbor on Lake Ontario. It is served by many railroads. It lies in the center of a fine farming district. It receives cheap electric power from the power plant at Niagara Falls. Toronto has a subway and wide streets which help to take care of its increasing traffic. The city will continue to grow as the new St. Lawrence Seaway is used more and more.

Hamilton is a steel-mill city. Iron ore is brought to its mills by ships on the Great Lakes. Windsor, opposite Detroit, manufactures automobiles. London is the trading center of a rich farming region.

General Motors Diesel



Many locomotives are built in London, in Ontario, Canada. In this picture the body of an engine is being lowered onto the two sets of train wheels. Notice that the man is giving signals.



Living from the soil

The northern part of Quebec and Ontario is a region of lakes and forests called the Laurentian Upland. The few towns of the area are lumber towns or mining towns.

The Laurentian Upland is Canada's principal storehouse of minerals. The people of the mining towns work in mines which yield iron ore, nickel, gold, silver, and *cobalt*. Cobalt is heavier and stronger than iron, and it does not rust or tarnish. Because cobalt can retain its hardness up to temperatures of 1000°, it is used, mixed with other metals, in making jet engines and gas turbines. More than 90 per cent of the world's nickel comes from southern Ontario.

Canada also has much *platinum*, a silvery-white precious metal. The chief use of platinum is in making jewelry. But platinum is also used in the chemical industry.

Canada has become a leading nation in the mining of *uranium*. On Great Bear Lake, at Port Radium, there is an ore deposit from which uranium is extracted. Much of the refined uranium is sent to the United States.

Abundant water power has aided the industrial development of Quebec province. Large aluminum plants are located on the Saguenay River. Canada must import the bauxite from which the aluminum is made. But the nation's great water-power resources make it possible to generate the electric power needed to produce aluminum at low cost. Canada imports most of its bauxite from South America. It is shipped up the Atlantic and the St. Lawrence to the Saguenay River.

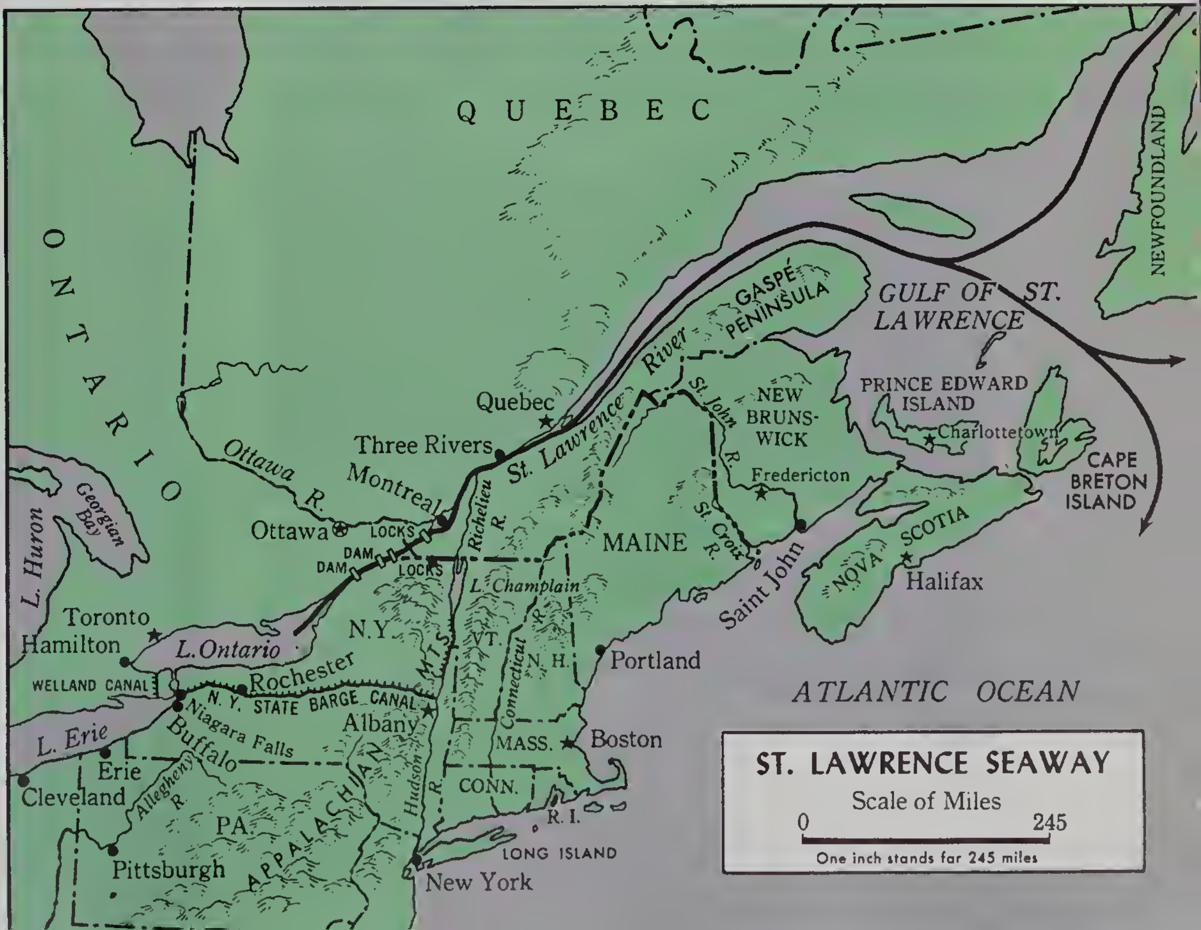
The world's largest deposits of *asbestos* are in southern Quebec. Asbestos is a kind of mineral fiber found in certain gray-green rocks. Because asbestos will not burn, mats made from it are used on stoves to keep food from burning. Most theaters have curtains made of fireproof asbestos. Firemen wear boots and suits made of asbestos to protect them in fighting fires.

Farms line the St. Lawrence River for the 750 miles from its source in Lake Ontario to the place where it flows into the Gulf of St. Lawrence. The lowlands of Quebec are quite cool in summer. The farmers there make a living by dairying. They sell milk to factories, which make butter and cheese from it. Much of the farm land is in hay and pasture for the dairy cows. Potatoes are a principal crop in these cool northern lands. In the spring sugar is made from the sap of the maple-sugar trees of the region.

The lowland of Ontario is farther south than it is in Quebec, and it is warmer. The farmers of Ontario raise dairy and beef cattle. They grow corn, wheat, and other grains. They also raise tobacco, which is processed in Canadian factories.

An international waterway

Canada and the United States share four of the five Great Lakes. The international boundary runs through the middle of each of these large lakes. The lakes are connected by rivers, some of which have rapids. Because of the rapids the rivers are not navigable. For this reason canals, with locks, have been built so that ships can go around



This map shows the area of the St. Lawrence Seaway. It also shows the New York State Barge Canal System. How far is it by water from New York to Erie?

Ewing Galloway

In the Prairie Provinces of Canada numerous grain elevators rise along the railroad tracks. Railroad cars carry huge quantities of grain to eastern mills.

the rapids. The canals make it possible for ships to go from Lake Superior through the other Great Lakes and out through the St. Lawrence to the Atlantic. Recently the United States and Canadian governments have co-operated to deepen and widen the seaway so that it can be used by ocean-going ships. Trace the route of the St. Lawrence Seaway on the map on page 105.

THE PRAIRIE PROVINCES

The three provinces of Manitoba, Saskatchewan, and Alberta are called the Prairie Provinces. Find them on the map on page 104. Winnipeg is the capital of Manitoba, Regina of Saskatchewan, and Edmonton of Alberta. The Prairie Provinces are Canada's great western farming lands. They are a part of the Great Plains just as our North Central states are. About 2,500,000 people live in these three provinces.

The Prairie Provinces were slow in being settled because of lack of transportation to the region. After the first transcontinental railroad was completed in 1885, people began to move into the prairie regions in larger numbers. Farmers from Europe, from eastern Canada, and from the United States settled there. By 1910 most of the farm land had been claimed. Today the prairies contain more crop land than any other section of Canada. Four out of every five acres in Saskatchewan are under cultivation.

Living from the soil

The farmers of the Prairie Provinces grow wheat, rye, barley, oats, and flax, but wheat is by far the most important crop. Large wheat fields cover much of the land, for Canada is one of the important wheat countries of the world. Its wheat helps feed the people of western Europe.

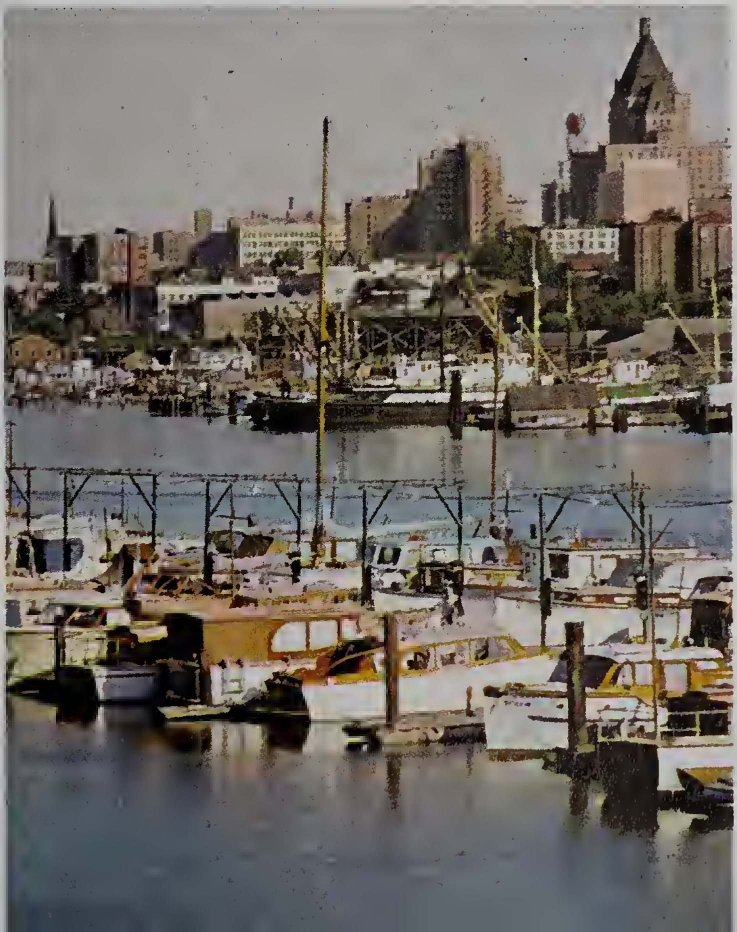
Shostal

This is a view of Lake Louise, in Banff National Park. It is beautiful scenery like this which brings thousands of tourists each year to this world-famous park in Alberta.

SCENES IN WESTERN CANADA

Vancouver, shown below, is Canada's largest seaport on the Pacific. Vancouver has one of the world's best natural harbors. Name some products that are shipped from this harbor.

Shostal



Shostal

This power plant on the Kootenay River, in British Columbia, supplies the electricity to run the huge smelters in this region. What ores are mined in British Columbia?

Caterpillar Tractor Company

This large wheat farm is near Calgary, Alberta. Great combines harvest the wheat. Then it is stored in tall elevators like those on page 106. Later it will be shipped to flour mills.

Most of the wheat from western Canada is shipped eastward by railroad to the shores of Lake Superior. There it is put on ships at Fort William and Port Arthur (see the map, page 104). The lake ships take the wheat to Port Colborne, on Lake Erie, or on to Montreal. At Montreal the wheat is loaded on ocean vessels for the journey to England.

Moving along the St. Lawrence Seaway, wheat can go all the way from Lake Superior to England in the same ship. Wheat from the prairies is also sent by railroad to the seaport of Churchill, on Hudson Bay. It is then shipped in ocean vessels to England. Because ice forms in Hudson Bay in October or November, the time after the harvest in which the Hudson Bay route can be used is very short.

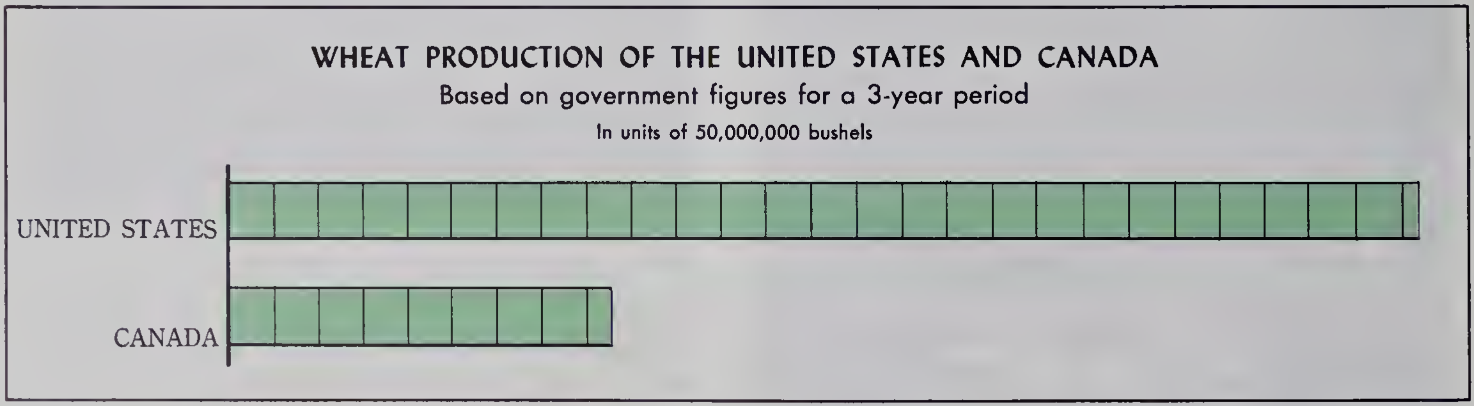
Living in the cities

The cities of the Prairie Provinces serve as business centers for the farmers. Winnipeg, the largest city of this region, is the size of Tulsa. It has the largest railroad yards in Canada. Winnipeg is also the leading commercial center for the prairie section. Regina, Saskatoon, Calgary, and Edmonton are the other chief cities of these provinces.

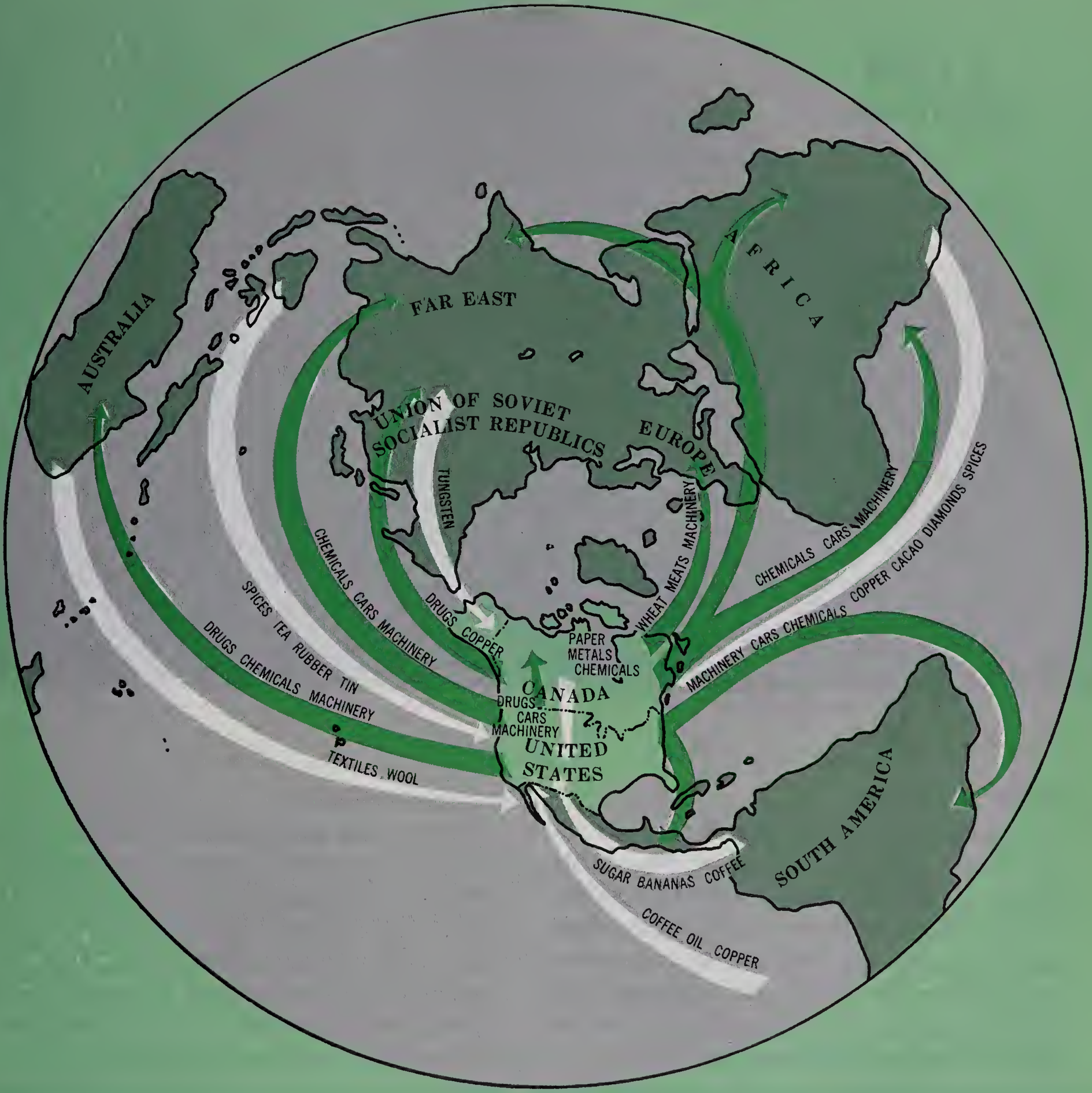
There are important minerals in Alberta, in the plains at the base of the Rockies. Canada's greatest coal and oil fields are in this province. Many people in this area make their living from these resources.

The western edge of Alberta reaches to the Canadian Rockies. Many persons in the town of Banff and on Lake Louise make their living by serving tourists.

Study this chart and compare the yearly wheat production of Canada and the United States.



WORLD TRADE OF THE UNITED STATES AND CANADA



LEADING EXPORTS OF THE UNITED STATES
MILLIONS OF DOLLARS

Machinery	6,156
Foods	2,060
Chemicals	1,491
Iron & Steel	1,017
Cotton	452

LEADING IMPORTS OF THE UNITED STATES
MILLIONS OF DOLLARS

Manufactures	5,259
Machinery	1,622
Petroleum	1,529
Paper	1,089
Coffee	1,012

LEADING EXPORTS OF CANADA
MILLIONS OF DOLLARS

Foods	1,107
Paper	722
Wood & Pulp	630
Metals	592
Machinery	413

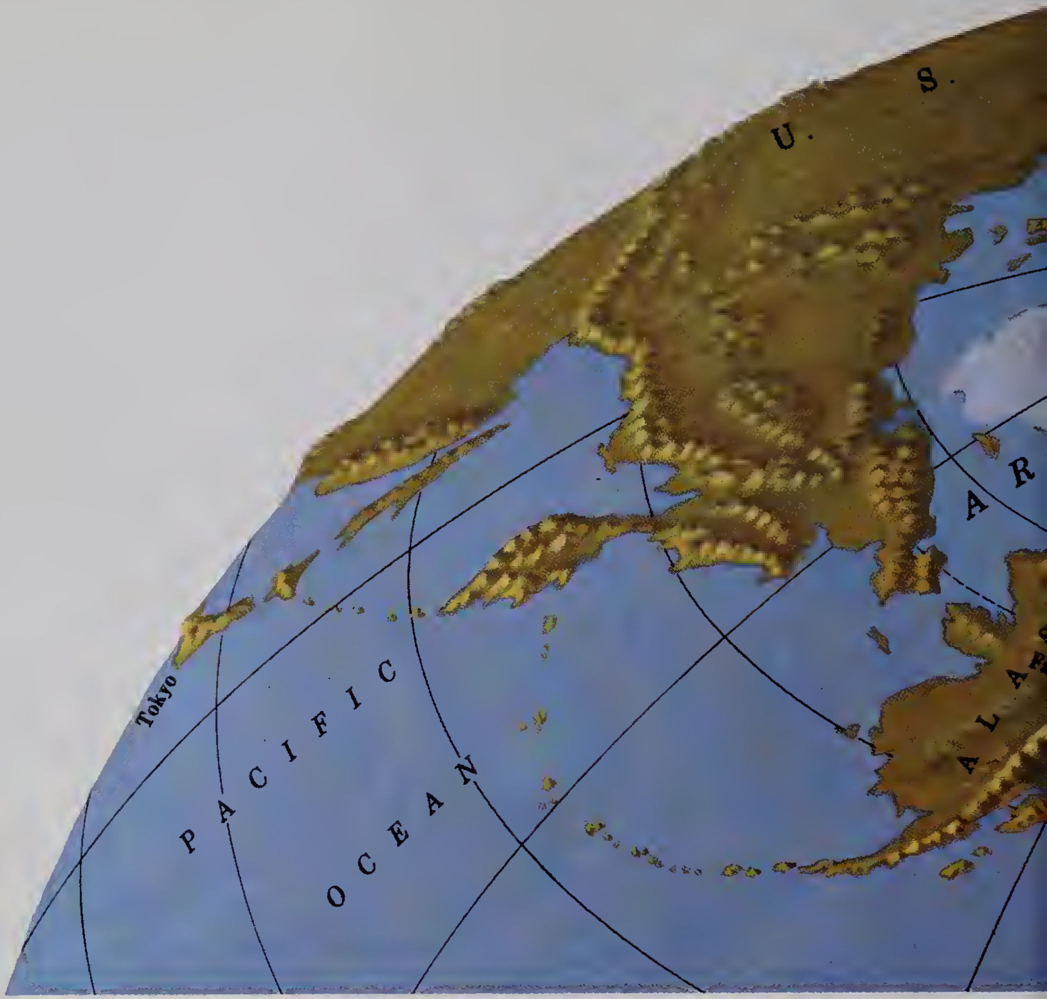
LEADING IMPORTS OF CANADA
MILLIONS OF DOLLARS

Machinery	2,050
Foods	595
Oil & Coal	534
Chemicals	335
Iron & Steel	260

BASED ON RECENT GOVERNMENT FIGURES

A POLAR PROJECTION

A map like this, which is centered on the North Pole, is a special kind of polar projection. It shows clearly the northern lands of the world and their geographical relationships. Why is Fairbanks, Alaska, an important airport? Note the size of the polar icecap.



BRITISH COLUMBIA

British Columbia is Canada's province on the Pacific (see the map, page 104). This province is a mountainous one. It contains the western slopes of the Rocky Mountains, the Selkirk Range, and the Coast Range. Long valleys lie between and among these mountains. The Columbia River rises in British Columbia and flows into the United States. Another large river, the Fraser, flows through British Columbia and reaches the ocean near the seaport of Vancouver. Heavy rainfall and large rivers furnish British Columbia with abundant water power.

The coast line of British Columbia is broken by bays in which lie numerous islands. The largest island is Vancouver.

Living in the cities

Most of the people of British Columbia live in the southern part of the province. Vancouver is British Columbia's most important city and seaport. The Canadian Pacific Railway ends in Vancouver. This city has a large, ice-free harbor. It exports great shiploads of wheat and carries on an important shipping trade with the Far East. Vancouver is the center of the lumber industry of British Columbia.

At the southeastern tip of Vancouver Island is the beautiful city of Victoria. Victoria is the capital of British Columbia. The city is famous for its beautiful homes, its English gardens, and its English ways of living. This city attracts many tourists.

Living from the sea and the soil

Half of the people of British Columbia live on ranches in the valleys, in lumber camps, and in mining districts. Hay, potatoes, oats, and a little wheat are grown. Near Vancouver and Victoria are dairy farms. The Fraser Valley has fine fruit farms.

Along the coast are the great salmon and halibut fisheries of the Pacific. The chief fishing grounds are near Vancouver and the Queen Charlotte Islands. The Pacific coast fishing grounds of Canada produce almost as much fish as do those on the Atlantic coast. Many people in British Columbia work in the fishing industry.

The forests of British Columbia produce about one half of Canada's lumber. Much of the lumber is made into wood pulp for use as newsprint.

British Columbia contains deposits of gold, silver, copper, zinc, and lead. Soon after the gold rush to California, gold was discovered along the Fraser River. Later, gold was found in the Klondike and Yukon districts.

In 1954 an aluminum plant was completed at Kitimat, about 400 miles north of Vancouver. Power for this plant is supplied from a plant fifty miles distant. Docks were built on the coast to receive the bauxite brought by ships from South America which come through the Panama Canal and north along the Pacific coast. The Kitimat plant is the world's largest aluminum plant. Its products are shipped to many foreign lands.

National Film Board of Canada

This mountain highway in Yukon Territory is seven thousand feet above sea level. To what great range do these mountains belong?

CANADA'S FAR NORTH

The Far North of Canada is divided into two territories (see the map, page 104). These regions do not yet have enough people to become provinces. Yukon Territory borders Alaska. The Northwest Territories stretch across the rest of the Far North.

The forests end in the southern part of the Far North. The mosses of the Arctic area cover much of this section. Reindeer, caribou, and other animals live there.

People in the Far North depend directly on the resources of the land and the sea. Some of them are Eskimos who live along the seacoast of the Arctic Ocean and the straits between the Arctic and the Atlantic. The Eskimos obtain most of their food from fish and other water animals, such as the walrus and the polar bear. Like the early Indians of North America, Eskimos use the skins of the walrus and the polar bear for clothing. Some of them still use animal sinews for thread and fish bones as needles. Eskimos who live inland hunt the caribou.

Only a few white people live in Canada's Far North. Some are trappers who capture animals for their pelts. Government air bases are manned by persons sent there from southern Canada. A few mining towns have food and other supplies shipped to them by planes. All such supplies must be brought in by air because no roads or railroads reach these distant points. The planes land on lakes in summer and on snow and ice in winter.

CANADA TODAY

Canada is a thriving nation today. It is growing in population and in industry. People are opening a new frontier in the Laurentian Upland, but it is a lumbering and mining frontier rather than a farming area.

In our study of Canada we have seen that Canada and the United States have much in common. We are both self-governing nations. We are friendly and peaceful neighbors. We share a long boundary, on which there are no soldiers or forts to keep the peace. We share four of the five Great Lakes. The people of our two countries depend on each other in trade and communication, in freedom to travel across the border, and in the defense of the hemisphere.

Do you know—

1. Into what four regions may the provinces of Canada be divided?
2. What is the largest city in each region? What is the largest city of Canada?
3. What are Canada's chief industries?
4. What is the Far North like?

3. LIVING IN GREENLAND AND ICELAND

Greenland and Iceland are northern neighbors of the United States and Canada. Find these islands on the map on page 104.

THE WORLD'S LARGEST ISLAND

Greenland is more than one fourth the size of the United States. It is the largest island in the world. Most of Greenland is covered by thick sheets of ice. About 30,000 people inhabit the island. Their homes are along the cold and rocky shore, and they live from the products of the sea. Greenland has some farms but no forests. Some wheat, potatoes, and vegetables are grown there. Sheep are also raised.

Greenland is owned by Denmark, a country in northern Europe. Nearly all the inhabitants are Eskimos. But some people who live in Greenland have come from Denmark to carry on government business.

Greenland is important to the United States for two reasons. One reason is that it lies on both the northern air route to western Europe and on the air route across the North Pole to the Soviet Union. The second reason is that Greenland has the only *cryolite* mines in the world. Cryolite is a mineral used in the refining of aluminum.

A VERY OLD REPUBLIC

Iceland, 200 miles to the east of Greenland, is an island with an area as large as that of Kentucky. From its name you might expect that Iceland, like Greenland, is a land of ice and snow. But Iceland has farms and good pastures. It has a few mountain glaciers.

Iceland was settled by the Northmen, or vikings, more than 1000 years ago. As the population grew, its leaders formed a lawmaking council. Through this council the

Much of the coast of North Greenland is bare. Rocky cliffs rise above the ice-covered sea. Even the toughest plants can grow in only a few sheltered places. This is a polar desert.

Ewing Galloway

people developed a form of self-government which has been in operation since the year 930. Their language is much like Danish.

Iceland was once united with Norway. Between 1918 and 1944 Iceland became a separate country under the king of Denmark. In an election in 1944 the people voted for complete independence. Reykjavik is the capital city and chief seaport of the republic.

Nearly 180,000 people live in Iceland. About one person in three is a farmer, one in three is a fisherman, and one in three works in Reykjavik. Hay and potatoes are the leading crops, and cattle and sheep are raised. So many fish are caught that fish are shipped in quantity to Europe and America.

Iceland has a fine system of education. In its schools everyone learns to read and write. Iceland's towns are modern. Heat from hot springs and from some volcanoes in the interior is piped to Reykjavik, where it is used to warm some houses. Greenhouses are also heated in this way. In these greenhouses fruits and vegetables are grown.

Iceland is important to the United States, to Canada, and to western Europe because it lies on the northern air routes across the Atlantic. Airports in Iceland can serve as landing places and can refuel the planes.

The United States and its neighbors, Canada, Greenland, and Iceland, are friendly to each other. All are peace-loving lands. They trade with one another and help each other in the defense of the hemisphere. North America is a peaceful area from the Pacific to the Atlantic and from Alaska to Greenland and Iceland.

Do you know—

1. What is the world's largest island? What nation owns it?
2. How is Iceland governed?
3. Why are Greenland and Iceland important to us?

TO HELP YOU LEARN

Words and Terms to Remember

cryolite
cobalt
uranium
asbestos
newsprint
ambassador
governor general
prime minister
platinum
parliament

A Matching Game

Number a paper from 1 through 10. After each number write the word or term from the list above which matches the definition.

1. An official sent by his country to represent it in another country
2. Paper, made from wood pulp, which is used for the printing of newspapers
3. A heavy, strong mineral that does not rust or tarnish
4. A metal used in work on atomic energy
5. The elected leader, or head, of the Canadian government
6. A silvery-white precious metal used in jewelry
7. The British queen's representative in Canada
8. A mineral fiber which will not burn
9. A mineral used in refining aluminum
10. A lawmaking assembly similar to our Congress

Finding the Facts

1. What conditions gave New England an early lead in manufacturing? Why is New England not important as a farming area?
2. How did the opening of the Erie Canal benefit the farmers of the Middle West? How did the canal help New York to grow?
3. Why is Boston called a cultural center?
4. Discuss two other cities of the Northeast that are also cultural centers.
5. Why did Pittsburgh become a great city?
6. Why is the Piedmont region important to the factories of the Southeast?
7. What three natural resources helped Birmingham to become a great steel center?
8. Why are cotton and tobacco called industrial crops?
9. How do the people of the North Central states make a living?
10. How did Chicago become a large city?
11. What are the greatest natural resources of the Southwest and how are they used?
12. How did Houston and New Orleans become important transportation centers?
13. How do San Francisco and Los Angeles compare in location, climate, size, and manufactured products? Seattle and Portland? Denver and Salt Lake City?
14. How did Canada become a nation?
15. Describe each of Canada's regions, from east to west, in terms of natural resources and geography.
16. Name Canada's three largest cities and tell why each is important.
17. What are Canada's chief industries? Choose one and discuss it.
18. List five facts which prove that Canada and the United States are much alike.

Using Maps

1. Name the five most important metropolitan centers of the Northeast and locate them on the map of the United States on page 61. Consult the industrial region map of the Northeast, page 62, to see how large an area each city covers.
2. On the industrial region map, page 62, locate Buffalo, New York. On what lake is it a port? What canal leads out of Buffalo? With what important river does this canal connect? List some of the places to which Buffalo can send products and from which it can receive shipments—all by water.
3. On the map of the United States, page 61, locate the states of the Southeast. Now turn to the industrial region map of the Southeast, page 67, and locate the four largest metropolitan centers.
4. Name the North Central states on the map of the United States, page 61. On the industrial region map of the North Central states, page 74, locate the three largest metropolitan areas. What cities are important trading centers in these areas?
5. How do the industrial regions of the South Central states, on the map on page 75, compare with the industrial regions of the Northeast, page 62? With the industrial regions of the Southeast, page 67?
6. On the map on page 105, trace the route of the St. Lawrence Seaway. What great bodies of water does it connect? Name the principal Canadian and United States cities that are ports on this water route. Review the text, and name the cargoes that ships carry from each of these cities.
7. Turn to the world population map, on page 52, and compare Canada with the United States in population density.
8. What are the most important exports of the United States, as shown on the map on page 109? What are our major imports? List Canada's major exports and imports. Use the tables on the map to find the total amount in dollars of the exports and imports of each country.
9. Compare the map on page 109 with the polar map shown on page 46. Why is the projection used in these maps called a polar projection? Now compare the map on pages 110–111 with the map on page 109. In what ways are these maps alike?

Making Geography Real

One day in June, 1959, an important ceremony took place on board a ship in the St. Lawrence River. On that day President Dwight D. Eisenhower and Queen Elizabeth II, of England, met to celebrate the opening of the new St. Lawrence Seaway. The meeting symbolized the co-operation of the United States and Canada in constructing the world's largest inland waterway.

The St. Lawrence Seaway is a passage that connects the St. Lawrence River and the Great Lakes. It is a part of the waterway system over which ocean ships may travel to ports on the Great Lakes more than 2000 miles inland.

As a result, such cities as Chicago, Milwaukee, and Duluth-Superior, in the United States, and Montreal and Fort William, in Canada, have now become world ports. This means that great cargoes of grain from the Midwest and ores from Minnesota can be shipped, without unloading and reloading, to far-distant ports. This saves time and expense.

In the International Rapids Section of the seaway a huge hydroelectric power plant has also been constructed. This project, located between Cornwall, Ontario, and Massena, New York, includes several dams which generate twelve billion kilowatt-hours of electricity each year. An aluminum plant at Massena was the first industry to use the power of the new plant.

Thus we see that the construction of the seaway has brought immediate benefits to the people of both nations.

Consult the map of the St. Lawrence Seaway on page 105 and answer these questions.

1. What water bodies make a continuous waterway from Duluth to the Atlantic?
2. What shipping advantages does the seaway offer to Great Lakes ports?
3. What other advantages besides improved shipping routes has the seaway brought to Canada and the United States?
4. How has the seaway proved the value of international co-operation?

Can You Find the Right Order?

Arrange the following events in the order of time in which they happened.

1. Northmen settled in Iceland
2. Iceland became independent
3. Quebec was founded
4. Canada became an independent nation
5. The Erie Canal was opened
6. The first oil well was drilled in the United States
7. Baltimore was founded
8. New Orleans was founded
9. Alaska became a state

Interesting Things to Do

1. Divide the class into six groups. Let each group plan a trip through one of the six regions of the United States. Appoint a chairman for each group, who will write for materials to chambers of commerce in the most important cities of the region. Each group should report on the resources, crops, factory products, and cities of its region. Use a wall map in your report.
2. Assemble pictures which illustrate the geographical features and products of the five large regions of Canada. You can obtain pictures from magazines and by writing to air lines and travel agencies. Another good source of pictures and up-to-date information about Canada is the Canadian Embassy, 1746 Massachusetts Avenue, N.W., Washington 6, D.C.
3. Make a report, illustrated with pictures, on the largest city in the region of the United States where you live. Discuss the factors that caused it to be located where it is. List the means of transportation which have helped the city to grow. Mention the raw materials that the city processes and tell what its factory products are. Describe the activities in the city that make it a cultural center. To collect the information, consult reference books and write to the Chamber of Commerce of the city.

Things to Think About

1. If the thickly populated region of cities and their suburbs in the area between Boston, Massachusetts, and Washington, D.C., should eventually become a single metropolitan area, do you think it should be governed as one city? Give your reasons.
2. France and Great Britain both settled Canada. In 1759 Great Britain gained possession of Canada. Today Canada is an independent member of the British family of nations. If Canada had instead become a French possession, what changes might this have caused in its development? How would French possession have affected the United States?
3. Suppose that you as a pioneer in a new land were asked to decide where a new community should be built. What facts and geographic conditions would you need to know before making a decision? Give reasons for your answer.

Making an Outline

An outline is a listing of the different parts, or headings, of a subject. An outline helps you to see the plan of a book or a unit. An outline also helps you review materials. Below is an outline of the beginning of Unit 2. Copy it in your notebook, reread the text, and complete the outline.

I. A Quick Trip Around the United States
    A. The Northeast
        1. Living in the cities
        2.
    B. The Southeast
        1.
        2.
    C. The North Central States
        1.
        2.
    And so on.

II. A Quick Trip Across Canada
    A. History and Government
        1. Canada in the early days
        2.
        3.
    B. The Atlantic Provinces
        1.
        2.
        3.
    C. The St. Lawrence Lowland
    And so on.

Making a Chart

1. Make a "cities of the United States" chart. List three important cities in each of the six regions, and fill in the facts called for.

City	Where located?	When founded?	State	Chief products
Boston	seaport	about 1630	Mass.	leather goods, fish

2. Make a chart of Canada's most important minerals. The chart has been started for you.

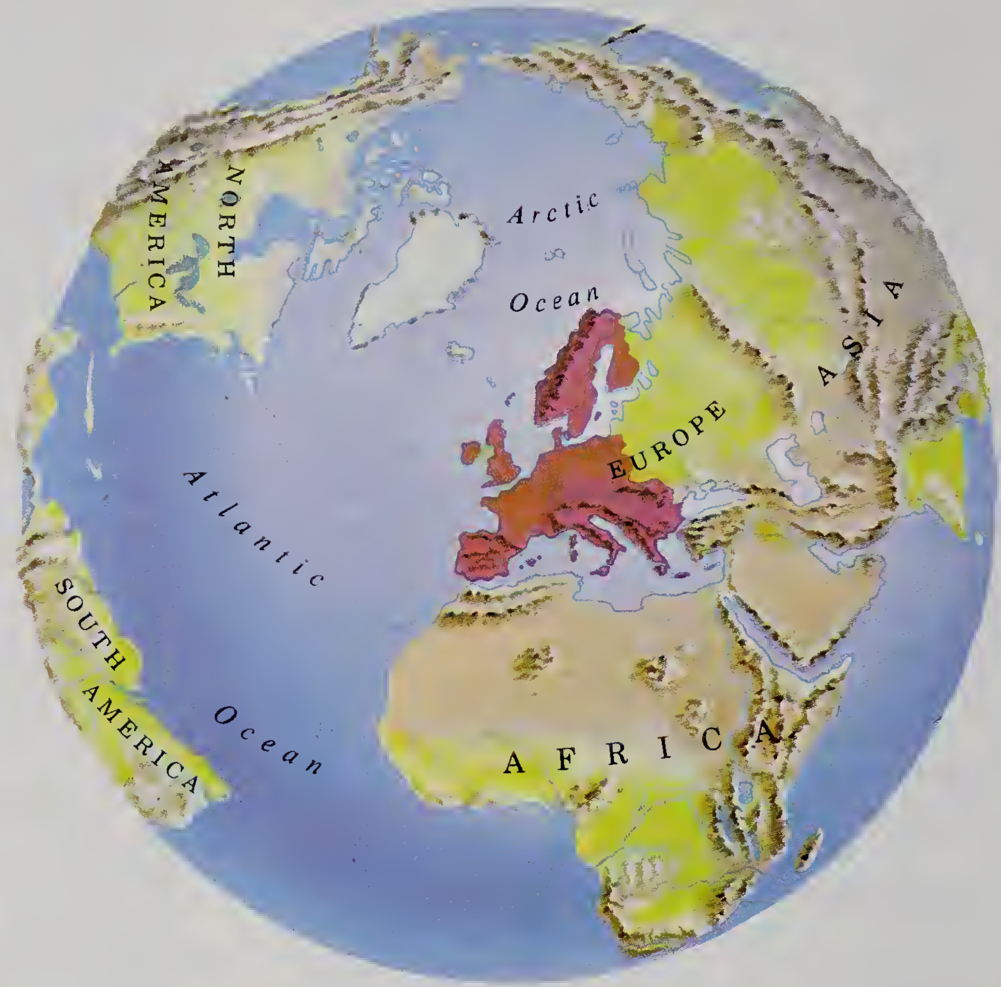
Minerals	Where mined?	How used?
asbestos	Quebec	in fireproof materials

Fishing for cod
in the Lofoten Islands

Making steel
in the Ruhr Valley

Generating electricity
in central Europe

Growing grapes and olives
near the Mediterranean



3.

The Countries of Western Europe

ABOUT one thousand years before the discovery of America an exciting event took place on an island in the North Atlantic. Bands of warriors in long black ships sailed from across the sea and landed on the southern and eastern coasts of this island. These invaders were tall, fair-haired, and strong. They fought with bows and arrows. The people of the island were no match for them. Some fell before the arrows of the invaders. Others hid among forests and hills.

More and more of the invaders followed. They cleared land and built houses. They formed small communities. As time went on, these communities grew into small kingdoms.

The island of our story is Great Britain, and the invaders were the Angles and the Saxons. They came from a region in what is now northern Germany. Today the descendants of these people still live on the island, which came to be called Angleland, or England. Its people are called English.

Other invaders came to the island in the next few hundred years—some from Denmark and others from northern France. These new invaders settled on the island, bringing their languages and customs. The Angles and Saxons were a hardy people. They learned from their conquerors. But the conquerors also adopted many Anglo-Saxon customs. In the long run, they themselves became English.

On this small island the English people built a great nation. They developed colonies in many parts of the world. The English made the first settlements in what is now the United States. From them we inherited our language, our system of government, and many of our ways of living.

The Anglo-Saxon invasion of Great Britain was part of a larger *migration,* or movement of people, which was spreading over western Europe. The Angles and Saxons belonged to a group of fair-haired, blue-eyed people called Germans.

During the time of the Roman empire the Germanic peoples lived in northern Europe. They lived simply, tilled the soil, and had flocks and herds. They were fierce warriors with a great love of personal liberty and freedom. As they grew in numbers, they began to migrate toward the south in search of better living conditions. These peoples swept across Europe, conquering as they went.

Rome fell before Germanic warriors called Goths. The Franks and the Normans settled in what is now France. As other tribes moved southward on the continent, they took over more and more land. In the end they conquered and settled all of western Europe. They brought with them their own languages and ways of living. They mingled with the peoples of the areas and learned from them. In time, settled communities were formed, and from these the nations of modern Europe later developed.

As we study this unit, we will learn the answers to the following questions:

1. What are the lands and resources of western Europe like?
2. How do people live in the countries of northern Europe?
3. What are the Atlantic lands like?
4. How do people in central Europe live?
5. What are the Mediterranean lands like?
6. What ties does the United States have with western Europe today?

Ewing Galloway

The beautiful city of Geneva is built on the shore of Lake Geneva. A bridge crosses the narrow point where the Rhone River leaves the lake. The highest peak in the background is Mont Blanc.

1. WHAT WESTERN EUROPE IS LIKE

Europe, which is often spoken of as a continent, is really part of a larger land mass called Eurasia. Eurasia includes the continents of Asia and Europe.

In this unit we shall consider western Europe. See the map on page 122. The countries of western Europe fall, rather naturally, into four groups. These are (1) the four far-northern countries, (2) the eight Atlantic Ocean countries, (3) the seven countries of central Europe, and (4) the five Mediterranean lands. Turkey, which lies partly in Europe but mostly in Asia, will be considered in the unit on the Middle East.

FAVORABLE LIVING CONDITIONS

The maps on pages 44 and 45 show that much of Europe extends as far north as the main part of Canada. Yet western Europe, with less than half the area of Canada, supports 421,000,000 people, or about twenty-four times the population of Canada. Western Europe has more than twice the population of the United States. How can this area support so many people?

A temperate climate

One reason for western Europe's large population is the climate. The average summer temperatures, except in the Mediterranean Sea countries, are in the 60's. Except in the far north, winter temperatures seldom fall below freezing.

Why does this region have so mild a climate? Warm winds from the west blow from the Atlantic Ocean across much of Europe. These winds are warm because they pass over a warm current of water in the Atlantic, called the North Atlantic Drift. Find this current on the map on page 122. The winds cause the lands near the ocean to have a milder climate than the inland areas do. This is called an *oceanic climate.*

The winds from the Atlantic also bring plenty of rain to western Europe. The inland plains receive twenty to forty inches of rain a year. This is enough to produce good crops. Near the shores of the Atlantic and on the mountains, the rainfall is even heavier. On the coastal lands are pastures where many dairy and beef cattle are raised.

Along the Mediterranean Sea in southern Europe the rainfall is *seasonal.* By seasonal, we mean that the rain falls mostly at one season of the year. The rainy season is mainly during the winter months, from October to April. During the summer little or no rain falls. The special climate of this large area around the Mediterranean is known as a *Mediterranean climate.* Other parts of the world have this kind of climate, too. Southern California, for example, has a Mediterranean climate.

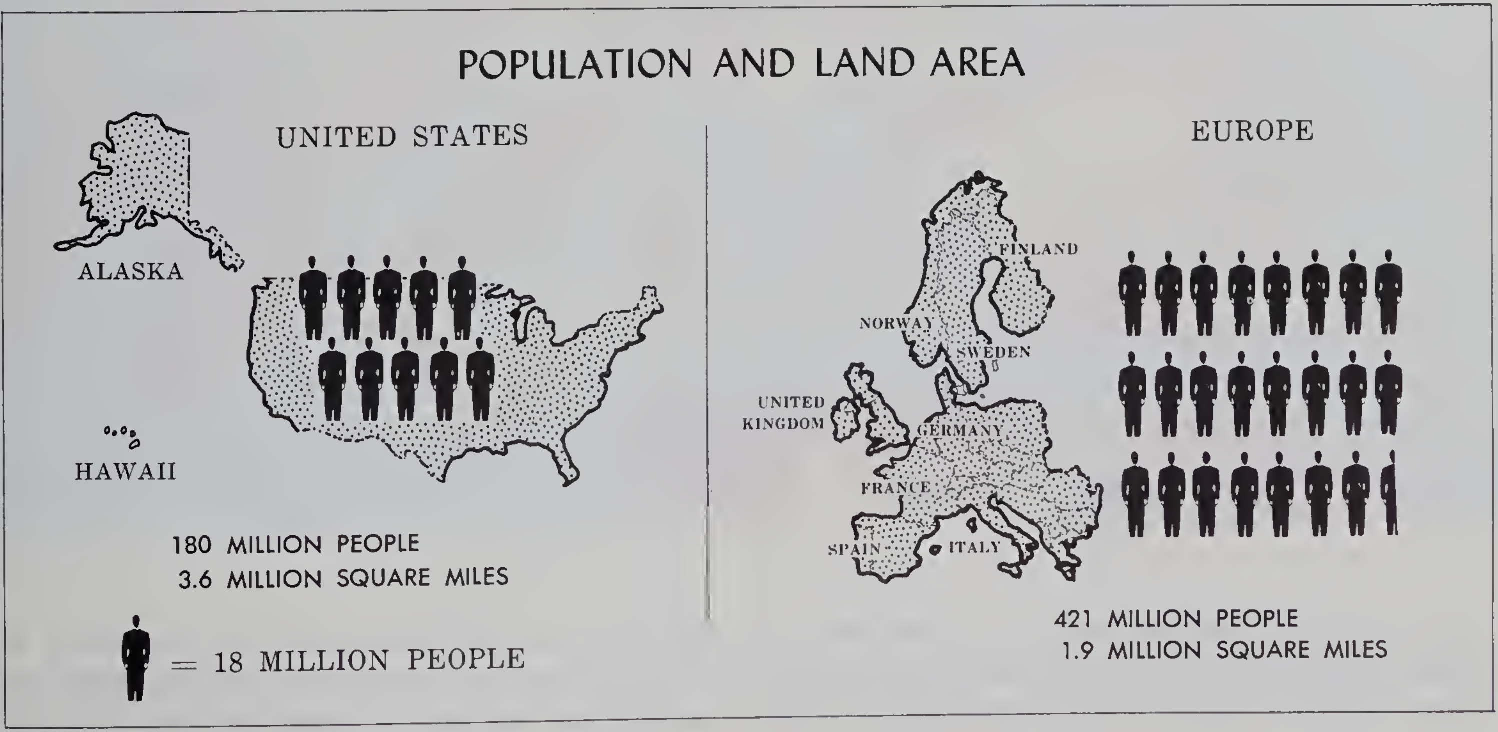
To raise crops in the Mediterranean lands during the dry season the farmers use irrigation. The water for irrigation comes from lakes formed by dams which store the water from the winter rains, or it is obtained from mountain streams. The farmers also raise some products that are *drought resistant.* Olive trees and grapevines, for example, are drought resistant because they are able to endure the dryness of the summer season. For this reason, olives and olive oil, grapes and raisins are important in these lands.

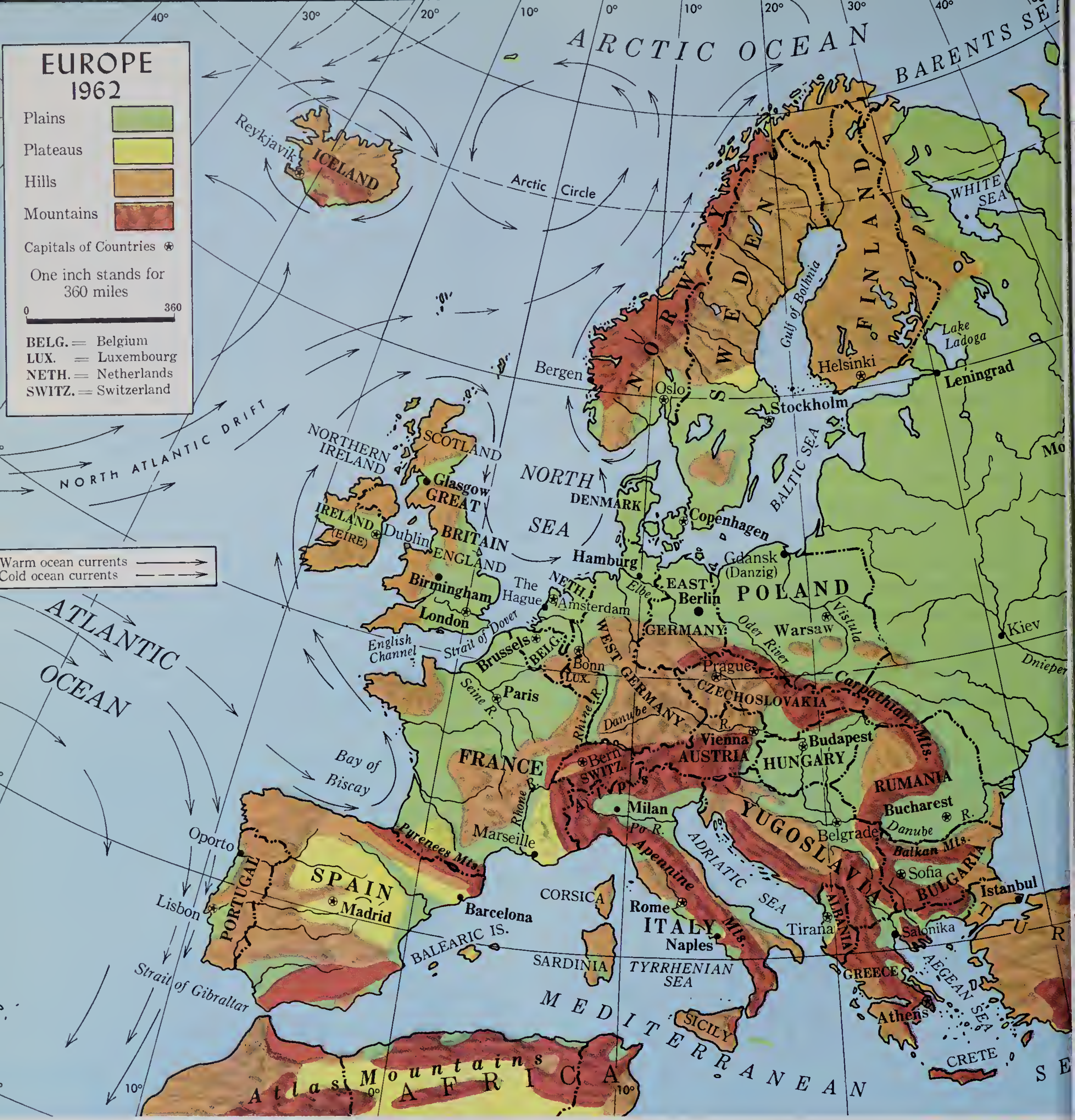
A favorable land surface

Western Europe, for the most part, is a plains region. But there are also hills and mountains. The greatest plains lie along the Atlantic Ocean, the North Sea, and the Baltic Sea. The valley of the Danube River and the Mediterranean lands also have plains areas. The plains have been important in the development of western Europe. One reason is that they are good farming areas. Another is that great cities have been built on these level lands because they offer easy routes for transportation and trade. A third reason is that the plains contain the greatest coal deposits of Europe.

The low hills and the mountains of western Europe are not great barriers to transportation. It is easy to travel around the hilly regions. There are natural gaps, or passes, through the mountains. Even the Alps, which rise to great heights, have a number of passes. Only the Pyrenees Mountains, between France and Spain, form a real barrier to travel.

POPULATION AND LAND AREA





On this map of Europe locate the far-northern countries, the Atlantic lands, the countries of central Europe, and the Mediterranean lands. Find the areas with many mountains. Find the largest plains region. What countries have plateaus? What bodies of water border Europe?

Fertile soil

Most of western Europe has fertile soil. In the regions where the soil is not rich, the farmers use fertilizer. European farmers take good care of their soil. To prevent *soil erosion,* or the washing away of soil by heavy rains, they build terraces on the hillsides which slow down the flow of water. When they plow, they make their furrows around the hills, instead of up and down the hills. This also helps to slow the running water and prevents soil erosion. Only in some mountain areas of the Mediterranean lands is soil erosion a serious problem.

Western Europe produces a tremendous amount of food. In the Atlantic lands, near the ocean, the pastures are like great lawns on which cattle feed contentedly. Milk and meat are produced there in great quantities. In the more inland areas the farms are like well-tended gardens. The farmers do everything possible to produce large crops. Yet western Europe does not grow enough food to feed its many people. Ships must bring additional products from many parts of the world. To pay for the imported food, the Europeans must manufacture goods and sell them to such food-producing nations as Canada, Australia, and Argentina.

The farmers of the Mediterranean lands, and especially the farmers of Italy, use *intensive farming* in cultivating their small plains areas. That is, they increase the productivity of their land by tending it very carefully and by growing different kinds of crops. Often two or more crops are grown on the same field at the same time. For example, grapevines are grown on trellises built across fields of vegetables. Around the edges of the field are fruit and nut trees. Fruit trees, planted against the walls of buildings, are cut and trained so that they will grow flat against the walls. Intensive-farming methods conserve valuable land and produce maximum crops.

Productive hills and mountains

The people of western Europe make good use of their hilly and mountainous regions also. Nearly all the hilly regions are used for pasture lands, orchards, or are planted in trees. Grapes are grown on warm hillsides that face southward toward the sun.

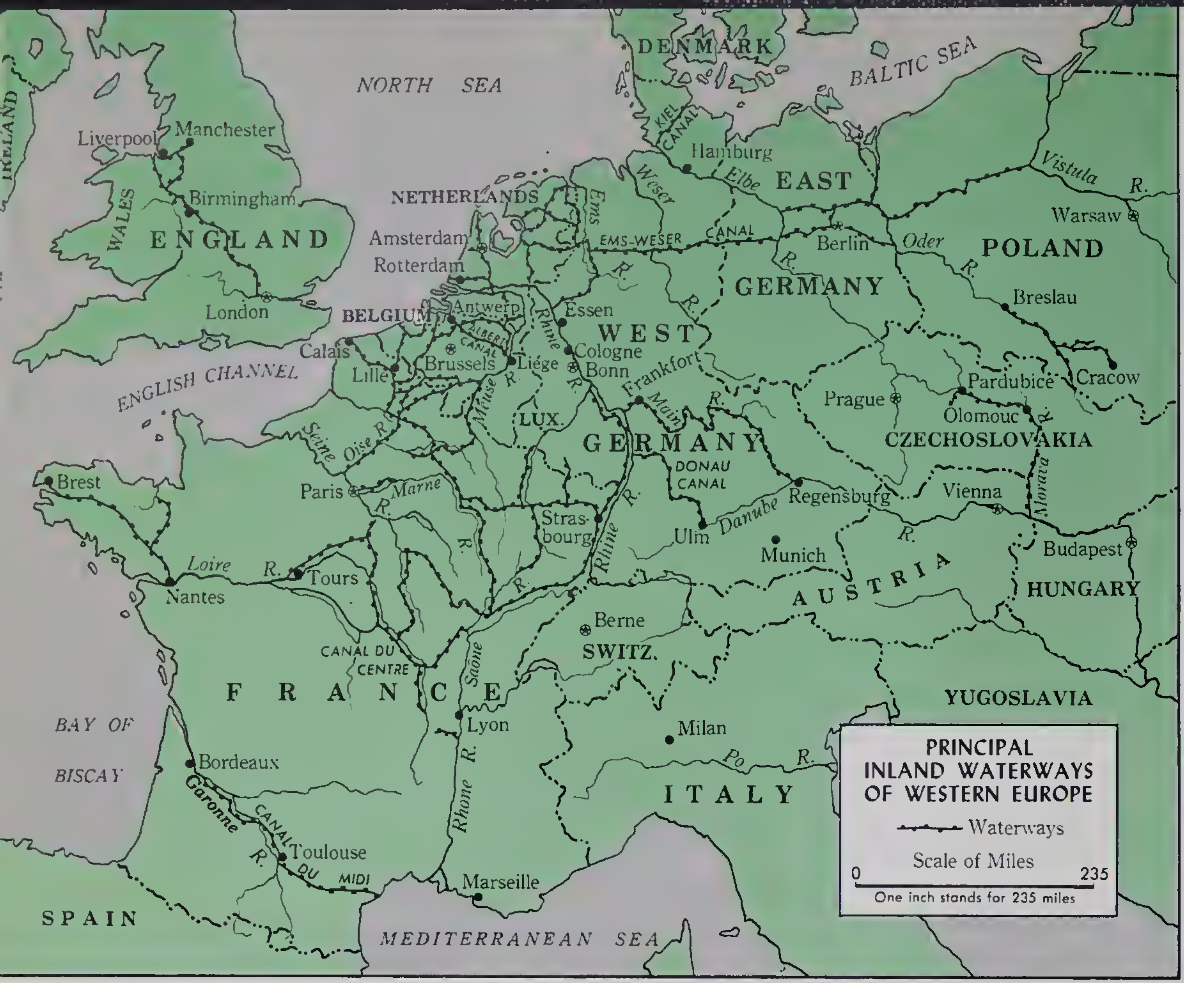
In the Alps there are pastures in the high areas where it is too cold for trees to live. Parts of the mountains, however, are so rock-strewn that nothing grows on them. But these rocky heights are used productively. On them hotels have been built for tourists who come to enjoy the fine air and splendid views. The mountains help many people in Switzerland and Austria to make a living by "selling scenery" to tourists.

Good transportation

The plains of western Europe offer easy routes for transportation. Many navigable rivers permit boats to travel far inland. The Rhine, for example, is one of the most heavily traveled rivers in the world.

Thousands of miles of railroads, highways, and canals cross western Europe. The canals connect one navigable river with another and extend to the sea. Many of the large cities are also connected by canals.

Europe is well served by highways and railroads. Highways have been built through the mountain passes. Railroads cross the Alps by using tunnels through the mountains just below the passes. The products of northern Europe are quite different from those of the Mediterranean lands. For this reason, there is a demand in each area for the products of other areas. So the railroads through the Alps do a good business.



This map showing the network of canals which connect many rivers of western Europe indicates how easy it is to send goods by water from one place to another. Using the map on page 122, tell how it was possible to develop such an extensive river and canal system.

The seaports of western Europe are among the largest and busiest in the world. London, Le Havre, Antwerp, Rotterdam, Amsterdam, Bremen, and Hamburg are especially busy ports. Marseille and Genoa are important ports on the Mediterranean.

Air lines reach all parts of western Europe. These lines connect the cities of the different countries. They also connect the cities of western Europe with other world cities. The planes serving these cities carry businessmen, tourists, mail, and much freight.

Many minerals

Many regions of western Europe contain valuable mineral deposits. The most important of these are coal and iron ore. In making steel, coal and iron ore work together as a team. Today steel is one of the most important materials in manufacturing. In the modern world machines, rails, beams, bridges, buildings, and many other things are made of steel, or some steel is used in them to add strength.

Western Europe's coal and iron-ore deposits are not distributed evenly. The largest iron deposits are in Sweden, France, and Spain. The most important coal fields are in Great Britain, Germany, Poland, France, and Belgium. The rest of western Europe has little coal and, except for Spain, little iron. That is why the busy manufacturing regions are not in the far north nor in the Mediterranean area.

Certain minerals are not found in many parts of western Europe. One of these is petroleum. In the modern world petroleum is very important. From it are made gasoline for running automobiles and airplanes and fuel oil for heating buildings and driving ships. Rumania, Poland, Austria, and Hungary have some oil. But Europe as a whole has to import its petroleum. It depends chiefly upon southwestern Asia for its supplies of this vital product.

Abundant water power

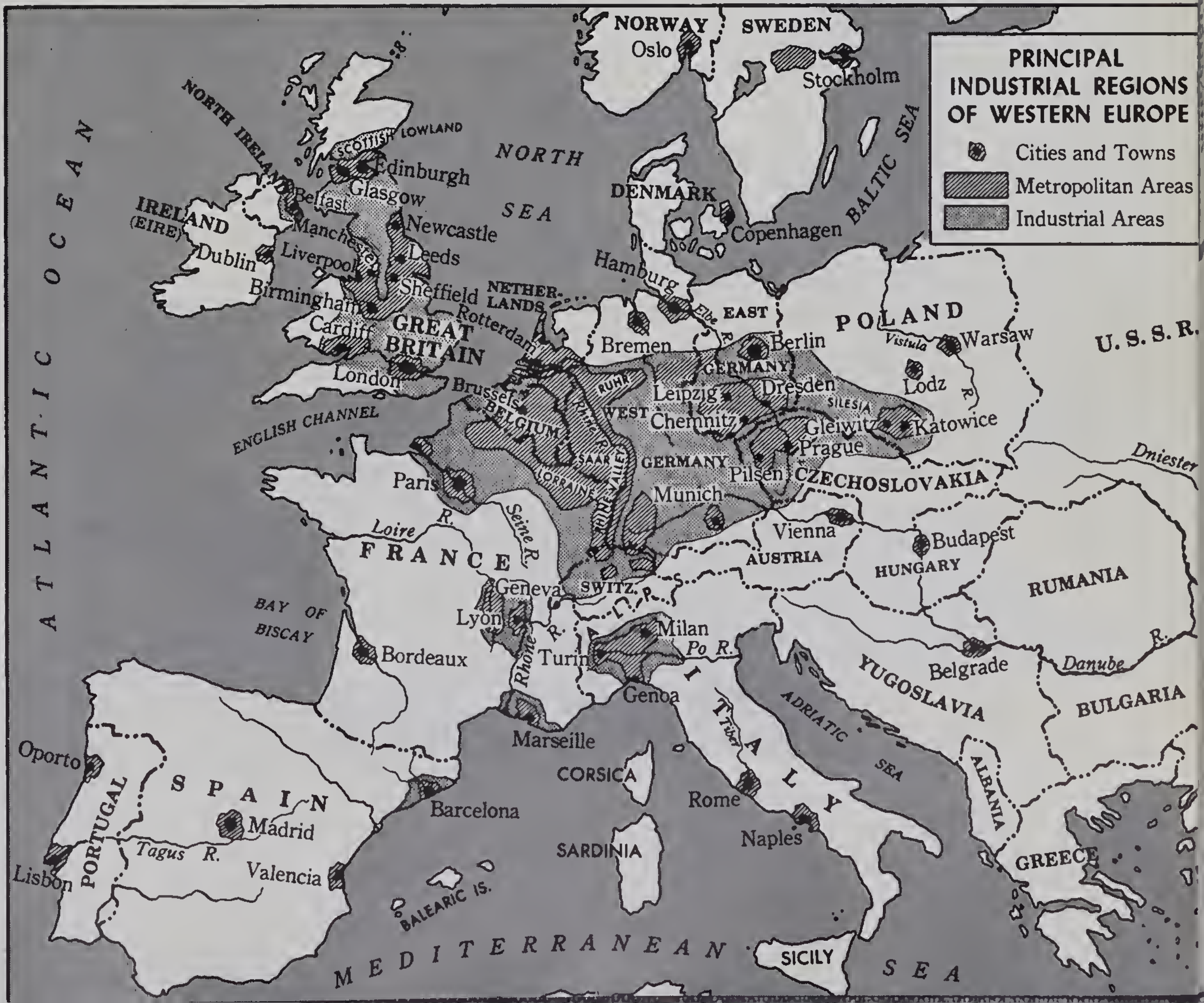
The mountainous parts of western Europe are well served by the power of falling water. Electricity is generated, or made, from the water of swiftly flowing mountain streams. It turns the wheels in many factories. The northern lands also depend on electricity generated from waterfalls. The Mediterranean lands, however, have only a little water power, because their streams dry up during the summer season.

Nearness to the ocean

As you can see from the map on page 122, Europe is surrounded by water on three sides. No part of the land area of western Europe is more than a day's journey from salt water. The long coast line of western Europe is a great advantage to its people.

These water areas are so easily traveled that there is a large sea trade among European nations and an important overseas trade as well. Sweden and Finland can send their large ocean-going ships directly to the Atlantic. The Mediterranean Sea extends more than 1500 miles eastward from the ocean. Greece and Italy are also able to sail ships directly to the Atlantic.

The ocean and the seas produce much food for western Europe. Thousands of people make their living as fishermen. Every coast has its fishing villages and towns. The greatest fishing areas are in the North Sea, between Great Britain and the Netherlands, and in the Atlantic Ocean, near the coast of Norway. But fishing is an important occupation from the Arctic Ocean to the eastern end of the Mediterranean.



This map shows western Europe and the principal areas in which industries have grown up. Can you tell why some of the cities increased in importance and other cities did not?

DENSE POPULATION

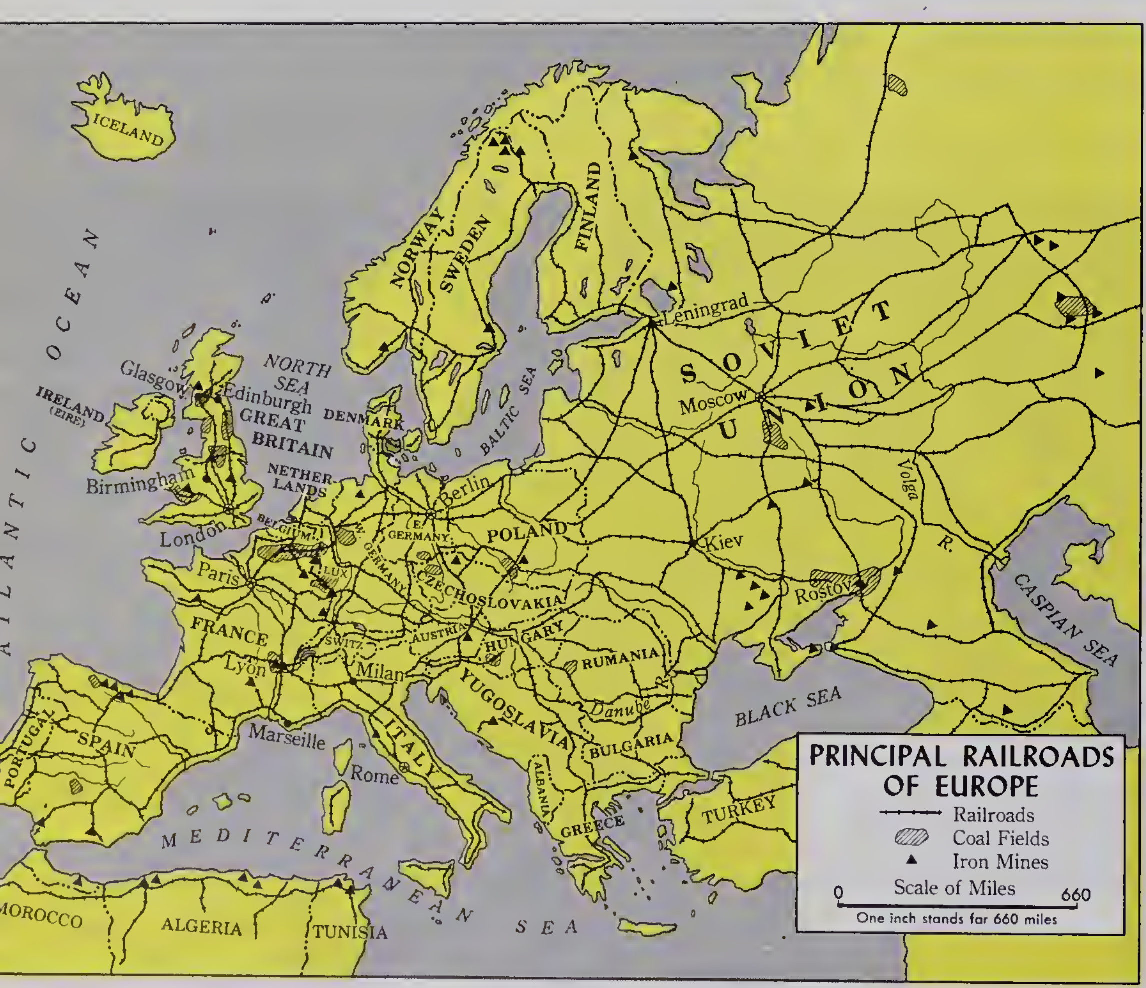
Since western Europe has a favorable climate and land surface, fertile soil, many minerals, and waters in which fish abound, it is able to support many people. Let us consider what the people are like.

Industrious workers

Most Europeans are energetic. Many of them, too, have been well trained. Some are university educated. Many have learned special skills in trade schools. Because the area is densely populated, large amounts of food must be raised. This means that every foot of land available for farming and gardening must be intensely cultivated because the amount of land in proportion to people is limited. Even so, most nations of Europe must import large amounts of food in order to feed their people.

France has a *population density,* or average number of persons for each square mile, of 213. Belgium's population density is 773 people for each square mile, that of the Netherlands is nearly 916 people, and Denmark's is 274. Compare these with the fifty states of the United States, where the population density is only 49.6 people for each square mile.

Land in Europe is expensive because there is so little of it in comparison with the number of people. Therefore, western Europe builds factories to give its many workers jobs. It can use large amounts of factory products. It also sells such products abroad and buys food with the money.



This map shows the chief railway lines of Europe. The map also shows where iron and coal are found. Can you explain why the railways were built near these mineral resources?

The man shown in this picture is operating machinery in an oil refinery in western Europe. Today oil is necessary to run industry and transportation.

German Information Center

Need for trade

Europe's two greatest resources, if we were to name only two, are people and coal. Raw materials are brought in from all over the world. Western Europe manufactures them into finished goods of many kinds through the use of its coal and its workers. Some of the finished goods are then exported to various parts of the world in European ships.

To support its many people, western Europe must trade. In fact, it is one of the largest trading centers in the world. The oceans and seas that wash the coasts of Europe are the busiest water areas in the world. Thousands of people make their living in trade and in transportation. Some of them spend most of their time on ships at sea.

World-wide contacts

Beginning in the early 1500's explorers, missionaries, and traders from western Europe began to go to all parts of the world. People left Europe and settled in the Americas, in Australia, New Zealand, and South Africa. In spite of differences in language Europeans have many traits in common. Their clothes and their manners are much alike. Their ways of living, which we often refer to as Western civilization, are much the same. The Americas, which were settled for the most part by people from western Europe, share the Western civilization. Today western Europe and the Americas, with Australia and New Zealand, are a part of the Western world just as the countries of eastern Asia represent the Far East.

Do you know—

1. Into what four groups may the countries of western Europe be divided?
2. What kind of climate does western Europe have? Why?
3. What is the land surface of western Europe like?
4. Why must western Europe trade with other parts of the world?

2. LIVING IN THE NORTHERN LANDS

In the far north of western Europe are four countries whose ways of living are somewhat similar. These are Norway, Sweden, Denmark, and Finland. Find them on the map, page 122.

HISTORY OF THE NORTHERN LANDS

In early times Europeans talked about a northern island which they called Scandia. They did not know that Scandia was not an island, but rather part of a great peninsula. Find this peninsula on the map on page 122. From the early name of Scandia we get the name Scandinavia. Norway and Sweden share this peninsula. Denmark, a country just to the south, is also called a Scandinavian land because it was settled by the same Germanic tribes as those of Scandia. Finland is a northern neighbor of Norway and Sweden. During the long years of Swedish rule over their land, the people of Finland adopted many Scandinavian customs.

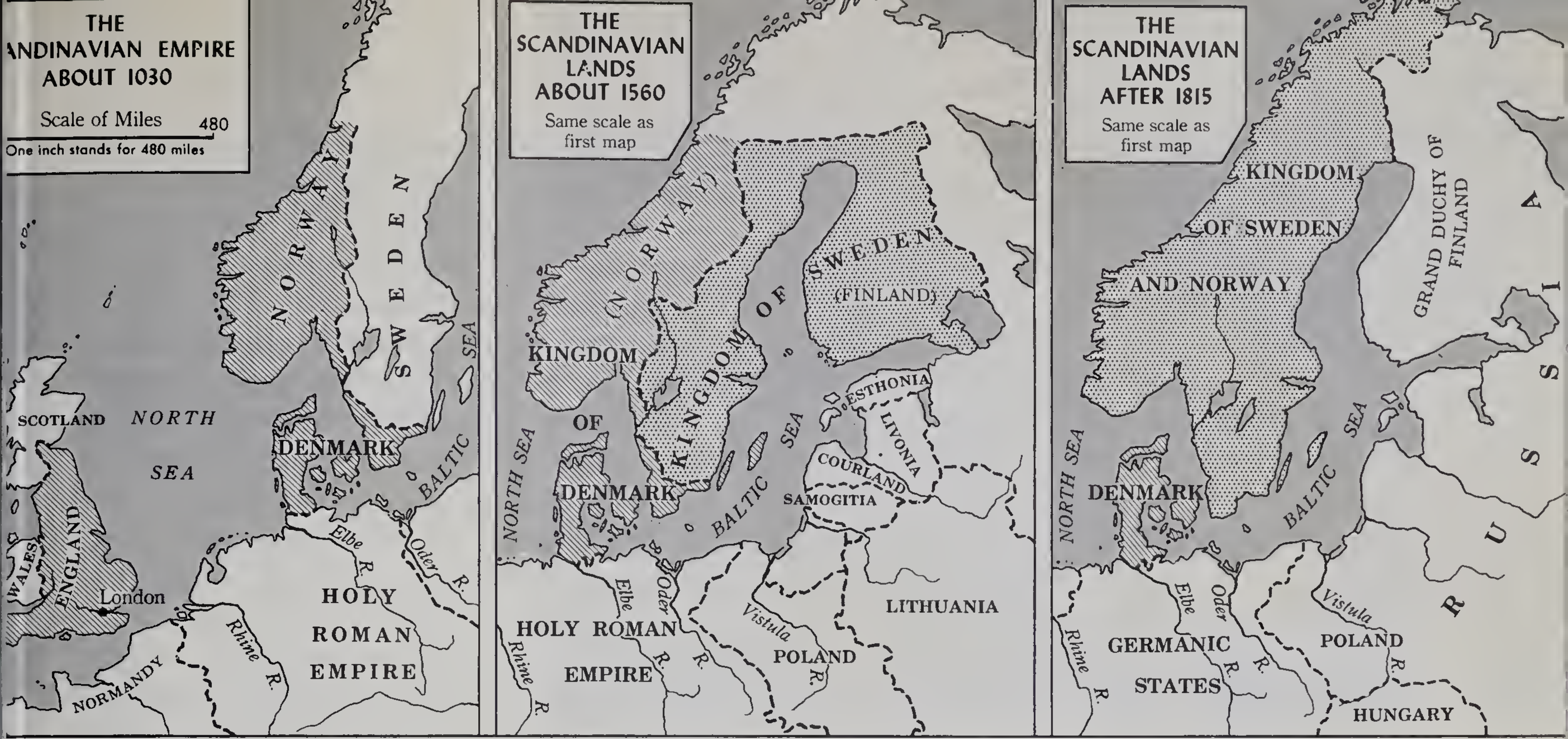
The Scandinavian nations

Norway, Sweden, and Denmark have at times shared a common history. We first hear of the early peoples of these lands when bands of warriors, called Northmen or vikings, began to invade many parts of Europe. In their long, swift boats they went to Great Britain, France, Ireland, Iceland, and Russia. They made settlements in all these lands. They were the first white men to see North America, on the northeastern coast of which they established a colony about the year 1000 A.D.

About this time Christian missionaries visited the homelands of the Northmen, who were worshipers of pagan gods. In time, the Scandinavians became Christians and settled down in three national communities: Norway, Sweden, and Denmark. Some years later these three groups united under the Danish queen to form a nation which was, at that time, the strongest in Europe.

This little Swedish village lies in the midst of rolling farm land, wooded hills, and swiftly flowing rivers. In what parts of the United States would you be likely to see a scene like this?

Swedish National Travel Office



The first map above shows the Danish kingdom in the time of the vikings. In 1399 Denmark, Norway, and Sweden were united under Danish Queen Margaret. The second map shows Sweden independent. By 1815 Sweden had lost Finland but had gained Norway, which it held until 1905.

The Swedes, however, were restive under the rule of the Danes. They revolted many times. Then a strong Swedish leader, Gustavus, led his people in a successful uprising and became king of Sweden. Under King Gustavus and his successors Sweden became the most powerful country in Europe. Sweden's rule was extended over neighboring lands. The Swedes also established colonies in far-off North America. Sweden's glory was great but short-lived. Its neighbors joined forces and defeated the Swedish army. Sweden has never since been a great power.

Norway and Denmark remained under one rule for about four hundred years. Then Norway became a Swedish possession. But the Norwegians wanted to be free. They constantly demanded self-government. At times civil war threatened. In 1905, in a great national election, the Norwegians declared in favor of independence by an overwhelming vote of 186,000 to 184. The king of Sweden bowed to their decision and granted Norway its independence.

Today all three nations are kingdoms, but their kings have little power. Each nation has a constitution, and the people elect their lawmakers and other officials.

Finland in the past

Finland was settled in early times by Germanic peoples who probably came from the region around the Baltic Sea. Then Finnish tribes came from the east, probably from what is now northeastern Russia. Their language was very different from the language spoken in Scandinavia. When Sweden was at the height of its power, it conquered Finland and held it for more than six hundred years. Some people from Sweden settled on the southern and western shores of Finland. The educated Finns became Christians, learned to speak Swedish, but continued to speak Finnish also. Thus the people of

Finland share many ways of living with the Scandinavians. After hundreds of years under Swedish rule, Russia, a powerful neighbor to the east, seized Finland and made it a part of Russia.

During World War I, which lasted from 1914 to 1918, Finland rebelled against Russia and gained its independence. Finland became a self-governing nation, but its freedom was not to last long. In 1939, the year in which World War II broke out, Russia again made war on Finland. The Russians took a large slice of Finnish land.

World War II

World War II began when Germany sent its troops against Poland. Great Britain and France, who had an agreement to help Poland in case of attack, then declared war on Germany. In time, most of the nations of Europe, the United States, and many other countries of the world were involved on one side of the conflict or the other.

In the spring of 1940 the Germans attacked the chief ports of Norway all at once. Peace-loving Norway was completely unprepared for war. Great Britain and France sent troops to help the Norwegians. But the powerful German army soon took over the whole country.

Norway's king fled to England and set up a Norwegian government in London. Under the leadership of this government the Norwegian navy, which had escaped capture by the Germans, battled German submarines and carried supplies to help Britain. At home the Norwegian people organized an *underground* (or secret) *movement* to work against the Germans. Some of them acted as spies. Others practiced *sabotage* in their jobs for the Germans. By sabotage we mean that they did their work slowly and carelessly. For this the Germans punished them. They also dealt severely with persons whom they suspected of working in the underground movement. But the Norwegians refused to co-operate with the Germans.

Denmark, also a peaceful country, was attacked by Germany on the same date that Norway was. The German troops overran the country. At first, they allowed the Danish people to manage their own affairs. But the Danes also practiced sabotage in their work. When the Germans discovered this, they enforced harsh rules on the Danes.

Sweden, which had no ports on the Atlantic, was not attacked by Germany. Sweden did not take sides in the war and managed to stay out of the fighting. However, many thousands of refugees, fleeing from the German armies as they conquered other lands, found safety in Sweden.

LIVING IN NORWAY

Norway occupies the western part of the Scandinavian Peninsula. As you see from the map on page 122, Norway's long coast faces both the Arctic Ocean and the Atlantic Ocean. On the south it borders the straits that lead from the North Sea.

Norway is about the size of New Mexico. It has almost the same number of people as Tennessee. The nation has one of the smallest populations in Europe, but the number of people is large for the mountainous land in which they live. Many Norwegians make their living from the sea.

In the southeastern part of Norway, on a plain east of the mountains, is Oslo, the capital. Oslo is a little smaller than Indianapolis, Indiana. It is at the head of a long arm of the North Sea which extends into the land. Oslo is Norway's largest city and leading seaport.

This is a fish market in Bergen, one of Norway's largest ports. The fishing industry produces a large share of Norway's income.

Norwegian National Travel Office

Norway's climate

Norway lies as far to the north as northern Alaska and Greenland. Yet most of the people are very different from the Eskimos of the Western Hemisphere. The Norwegians live in an oceanic climate, for they receive the benefits of the North Atlantic Drift (see the map, page 122). Unlike the Eskimos of Greenland, these Norwegians do not have to spend all of their time keeping warm and gathering food. The Norwegians who live on the Atlantic coast have farms and do some manufacturing as well as fishing.

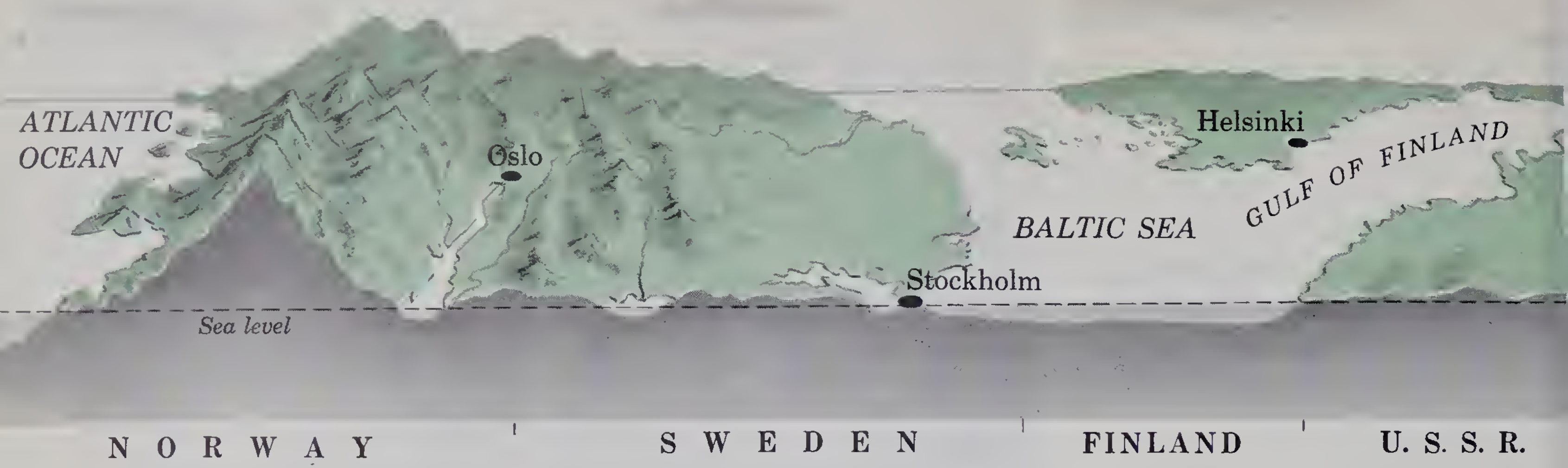
On the map on page 122 you will see that the Arctic Circle cuts across the north of Norway. The region north of the circle is sometimes called the "land of the midnight sun." At North Cape, on the Arctic Ocean, the sun does not set for two months of the year—from the middle of May to the middle of July. This means that during this period the inhabitants of this area can actually see the sun shining at midnight. Many tourists visit the North Cape each year to view the midnight sun. In the winter the sun does not rise in this region between the middle of November and the middle of January. For these two months the North Cape is in continuous darkness.

The mountains of Norway and the area near Oslo receive heavy winter snows. The west coast has little snow at sea level because of the effects of the Atlantic Drift. But on the mountains winter rains change to snow.

No part of Norway is far from the water. The mountains are too high and cold to attract many people, so most Norwegians live very near the sea. Most of the farming is done in the southeast, on the plain around Oslo. In mountainous Norway, however, only three acres out of every one hundred can be cultivated. Not enough food can be grown in Norway even for the small population. For this reason many Norwegians have turned to the sea for a living.

Fishing on the Atlantic coast

The west coast of Norway is very rugged, and the mountains rise steeply from the shore. At many places great arms of the



sea, called *fiords,* extend far inland between mountain walls. A fiord is a deep, narrow bay. The valleys in which fiords lie were made by a glacier which moved across this region many thousands of years ago.

Where do the people of western Norway live? Some live in villages on islands near the coast. But most of them built their homes on small patches of flat land along the fiords of the mainland.

What do these people do for a living? The answer is that most of them fish. The fiords and the near-by ocean are their front yard. They can walk out of their doors and go to work. Most of them farm a little. But they gain most of their living from the water rather than from the steep and rocky land.

Chris Christenson is a young Norwegian who lives by fishing and farming. His home is on a large fiord in the central part of the west coast of Norway. Let us see what he does from the beginning of a year to its end.

In January Chris is at home mending his nets as he prepares to set out on a fishing trip. In February he and several of his neighbors leave the fiord in a small engine-driven fishing boat. They travel north to the Lofoten Islands, north of the Arctic Circle. For two months Chris fishes for codfish. Thousands of other fishermen have joined him because those waters are one of the greatest cod fisheries in the world. At the end of each day Chris cleans the fish he has caught and spreads them on the rocks to dry. Some fishermen string their catch on wires to dry.

When April comes, Chris is ready to sail home with his boat filled with the dried fish. He sells his cod to a dealer who exports the fish to other countries. Then he begins his plowing and planting. Chris raises crops like potatoes and oats, which grow well in cool climates. When summer comes, he cuts and stores his hay. He cares for his three cows, milks them, and makes a little butter and cheese. Toward the end of the summer he harvests the oats and digs the potatoes.

When October comes, the crops have all been harvested. Then Chris goes away again, this time to the herring fisheries in the Atlantic Ocean between Norway and Scotland (see the map, page 122). Here he spreads his nets for herring. He sells the herring he catches to fish canneries in Bergen. Some of these herring may one day arrive at your grocery in the form of sardines.

By December, at the year's end, Chris is home again to spend Christmas with his family. But his vacation will be short, for he soon must go on another trip to the Lofoten Islands in search of codfish.

One of Chris's neighbors is Carl Olson, who is a full-time fisherman. When the codfishing season in the Lofotens is over, Carl goes far north to the waters of the Arctic Ocean near North Cape. He fishes for cod all summer along the Arctic coast of Norway. He returns home just in time to join Chris and the other herring fishermen.

Hans Gullickson, who also lives near Chris, makes his living as a sailor at sea. He travels all over the world in his work on a Norwegian ship and sends his wages home to his family. Sometimes he is gone for nearly a year at a time. His earnings support his wife and children in their home in Norway. Thus, the Gullickson family also depend on the ocean for their living.

Ole Johnson, another of Chris's neighbors, is a full-time farmer. Of the four families only Ole has enough land to make his living by farming. He grows crops and has herds of cows and goats. But Ole also fishes in the fiord near his front door when his farm work permits him to do so. Ole is not home during the summer. When the snow has melted in the mountains, Ole drives his herds up to the high pastures on the mountainsides. Here he stays all summer long with his animals while they graze on the mountain meadows. Morning and night the cows and goats are milked. The milk is made into cheese which will be sold. From time to time members of his family join him to help with the work. When it is time to return home to harvest his crops, Ole drives the animals down the mountainside. During his absence his wife and children have cut and stored the hay. Now he must harvest his oats and dig his potatoes.

These Norwegian families, who live close to the sea, all depend upon it, some directly and some less directly, to make a living. Other people of western Norway fish in faraway seas. Some of their ships sail far south to the Antarctic, where they hunt whales. Soap is made from whale oil. Other Norwegian ships sail north to the Arctic Ocean, where polar bears are hunted for their meat and their furs.

Water power and factories

Many of the streams of Norway have been dammed to produce electricity from the power of falling water. Factories use this "white coal," as it is sometimes called, to run their machines. Raw materials, such as

Norwegian National Travel Office

Fishing boats gather off the Lofoten Islands for the codfishing season. Each spring when the fishermen arrive, the population of these islands is doubled.

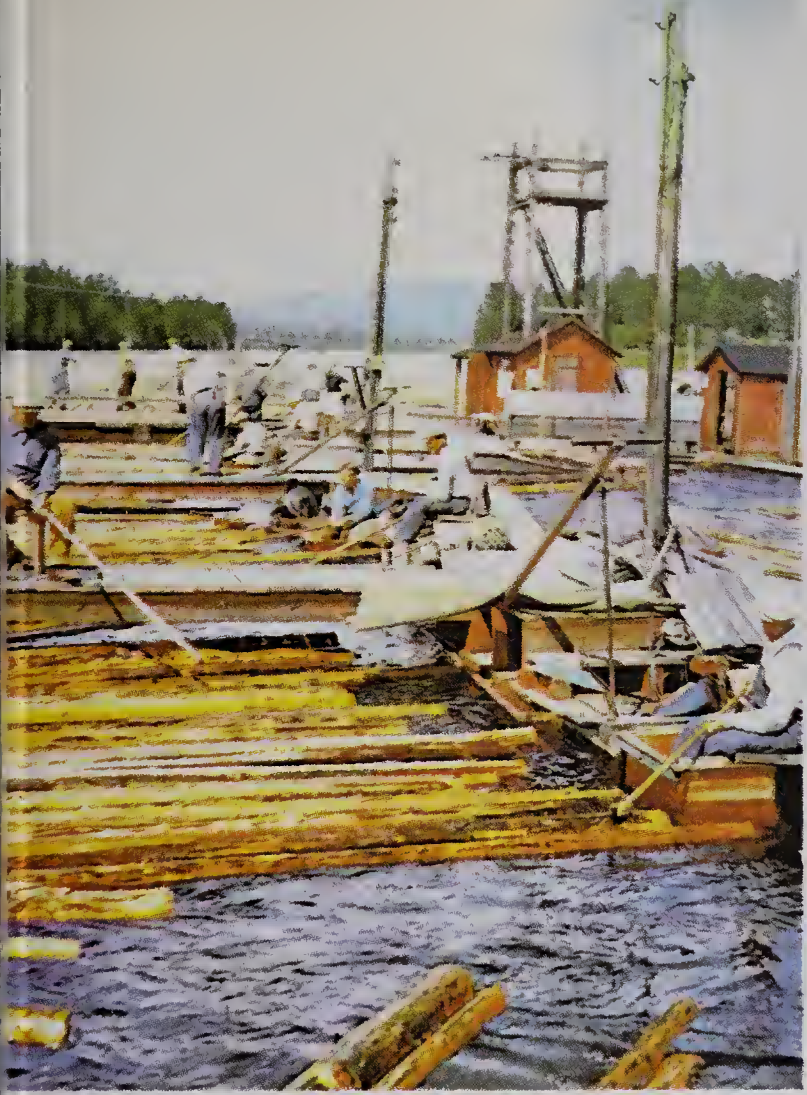
Danish National Tourist Office

SCENES IN DENMARK AND SWEDEN

Copenhagen, Denmark's capital, is built upon an island. It is also an important seaport and a commercial city. About one fourth of the people of Denmark live in this city.

Below is an open-pit mine north of the Arctic Circle. Iron from the mine will be used in Sweden's many steel mills. Sweden is one of the world's great producers of iron ore.

FPG



Shostal

The workmen above are sorting logs from Sweden's forests. In a mill the logs will be ground into pulp from which paper is made.

The picture below shows a tidy Swedish farm. By using improved farming methods, Sweden has greatly increased its amount of products.

Shostal

minerals, are refined or smelted by the use of electricity. Nitrates, used in making fertilizer and in explosives, are produced from the *nitrogen* which is in the air. Nitrogen, which is a colorless, odorless gas, makes up about four fifths of the atmosphere. Much electric power is needed to extract the nitrogen from the air and change it into useful products. Norway makes so much electricity that it sends some of it to Denmark in wires set inside of cables. The cables lie on the bottom of the strait between these countries.

Lumbering in Norway

Norway has forests on the lower slopes of the mountains and in the southeast. Some Norwegians make a living by lumbering. Much of Norway's pulpwood is exported.

LIVING IN SWEDEN

Sweden is about 1000 miles in length from north to south (see the map, page 122). It is a little larger than California, but it has only half as many people. Sweden has rolling plains to the south. The mountains of Sweden lie to the west, near the border with Norway. Broad, rushing rivers flow from the mountains across hills and woods to the Gulf of Bothnia. Sweden has many lakes.

Sweden's climate

The warm winds from the North Atlantic Drift do not reach Sweden because mountains stand between it and the ocean. As a result, all of Sweden is covered with snow in winter. For the same reason, Sweden is slightly warmer than Norway in summer.

Farming and manufacturing

There are good farms on the rolling plains of southern Sweden. The farmers there grow large crops of hay, oats, potatoes, rye, and

Swedish National Tourist Office

Handmade Swedish glass is famous the world over for its beauty. Note the design that this workman has cut into the piece of glassware he is holding.

wheat. Sugar beets are grown in the far south. Fine pastures support many dairy cows. Swedish farmers sell milk to factories which make butter and cheese.

A canal crosses Sweden from one coast to the other. Göteborg, the chief seaport on the western coast, is the place where the canal reaches the straits that connect with the Atlantic. The beautiful city of Stockholm, Sweden's capital, is on the east coast. Stockholm is the size of Washington, D. C. It is built on many rocky islands on the lake that connects it with the Baltic Sea.

The factories of Göteborg, Stockholm, and other cities obtain their power from electricity generated by falling water. The manufacture of machines is important in Sweden. The steel from which the machines are made is imported. Sweden also produces a small amount of steel by using charcoal in its blast furnaces. The result is a very high-grade steel. From it knives with fine cutting edges are made.

Wood from northern Sweden is made into many kinds of useful articles. Wood is also used to make matches. Swedish matches are sold all over the world.

Lumbering and mining

Northern Sweden is almost covered with trees. Many people earn a living in these forests. The government takes an interest in its forests. When a tree is cut down, another tree must be planted in its place. Some men chop down trees. Others plant young trees to take their place.

After the trees are cut down, the logs are floated down the rushing rivers to the Gulf of Bothnia. Giant lumber mills, built at the mouths of rivers, cut the logs into lumber.

Other mills manufacture paper from the logs. Both lumber and paper are loaded on ships at these large mills and exported to Great Britain, Germany, and other countries of western Europe. Do you see why the mills are well located for receiving logs and for shipping lumber and paper?

Northern Sweden has large iron mines. The iron ore is sent by electric trains to Narvik, in Norway, for export to Great Britain, Germany, and other countries. Narvik is not closed by ice during the winter. Can you explain why? But Swedish seaports on the Gulf of Bothnia can be used only during the summer. The northern ports on the gulf are closed by ice a few months each winter.

The Lapps of the north

In northern Sweden, and in near-by Norway and Finland, live tribes of Arctic natives. These people, who are somewhat like the Eskimos of North America, are Lapps. They are not related to the Scandinavians. The Lapps depend greatly upon the reindeer. This animal lives on grass in summer and on frozen moss in winter. The meat, milk, and skins of the reindeer furnish food and clothing to the Lapps.

LIVING IN DENMARK

Denmark lies south of the Scandinavian Peninsula. It occupies a small peninsula and surrounding islands (see map, page 122).

Denmark is twice as large as Massachusetts. Its population is equal to that of Indiana. Copenhagen, the capital city, is almost as large as Houston. In Massachusetts the people work mainly in manufacturing. But in Denmark most people make their living by farming. Without large industries how does Denmark support so many people? The answer is by dairy farming.

A dairy land

About one hundred years ago the government of Denmark divided the country's large farms into many small farms. These small farms were sold to the people. Thus it was that Denmark became a nation of small farms. The farms average twenty acres each.

But the farmers could not make a living by growing grain. The summers were too cool for grain, but grass grew well there. The Danish farmers turned to dairying. Soon they had more milk than they could use.

Great Britain, just across the North Sea, offered a fine market. Denmark decided to make butter for the British market.

A small farm could support only a few cows. Each farmer thus had only a small quantity of milk for sale. The Danes, therefore, had to find an efficient way to market their milk. They joined together to form a *co-operative,* or a kind of business that they could own and run for themselves. Each farmer agreed to belong to the co-operative and to deliver his milk to a butter factory. The factory was built by the farmers, and the butter maker was paid by the farmers. Most of the butter was sold to England.

Today rural Denmark specializes in three products: butter, bacon, and eggs. The dairy cows, feeding on the thick grass of the pastures, give a good supply of milk. The farmer sells his cream to the butter factory. He feeds the skim milk to the pigs and chickens on his farm. England pays well for Danish butter, bacon, and eggs.

Commercial Copenhagen

Copenhagen is an important seaport and commercial city. It usually has more income from trade than from manufacturing. Its trade comes from the many ships that visit the city because of its location on the Baltic.

LIVING IN FINLAND

Finland, as you see from the map on page 122 lies, north of the Gulf of Finland and east of the Gulf of Bothnia. Finland, like Sweden, does not reach to the Arctic Ocean.

Finland, which has about the same number of people as Missouri, is about twice as large as that state. Helsinki, on the southern coast, is the capital of this republic.

A land of lakes

The map on page 122 shows that Finland has many lakes. One square mile out of every ten in the country is covered by water. The people call their country Suomi, which means "land of lakes." From the lakes flow many rivers on which power plants which generate electricity have been built.

Forestry and farming

Most of Finland is very much like the northern part of Sweden. Many thousands of people find work in the forests and in the lumber and paper mills. Wood products are a leading export.

The far south of Finland is a farm and forest country. Dairy farming is important. Cheese is shipped to Great Britain, Germany, and other food-importing countries. People living on the coast engage in fishing.

Do you know—

1. What are the four northern lands? Where is each located?
2. In what ways do the people make a living in these lands?
3. What is the capital of each nation?

Words and Terms to Remember

nitrogen
fiord
sabotage
migration
soil erosion
seasonal
co-operative
underground movement
intensive farming
oceanic climate
drought resistant
Mediterranean climate
population density

A Matching Game

Number a paper from 1 through 13. After each number write the word or term from the list above which matches the definition.

1. **The washing away of soil by heavy rains**
2. **Carefully tending land to increase its yield**
3. **The ability of certain plants or crops to endure dry weather**
4. **The average number of persons for each square mile of land**
5. **Occurring at a regular time, or season, of the year**
6. **A business owned and run by a group of persons who divide the profits**
7. **A climate with cool, rainy winters and hot, almost rainless summers**
8. **To cut down production by working slowly or by damaging machinery**
9. **A colorless, odorless gas found in the air**
10. **A group that works together secretly against an enemy**
11. **A climate which has mild summers and mild winters with plenty of rain because of its nearness to the sea**
12. **The movement of a number of people from one region to another**
13. **A narrow inlet of the sea extending inland between high banks**

Martin from Shostal

The House of Lords and the House of Commons meet in separate sections of the Palace of Westminster in London, overlooking the Thames. The tower clock is the famous "Big Ben."

3. LIVING IN THE ATLANTIC LANDS

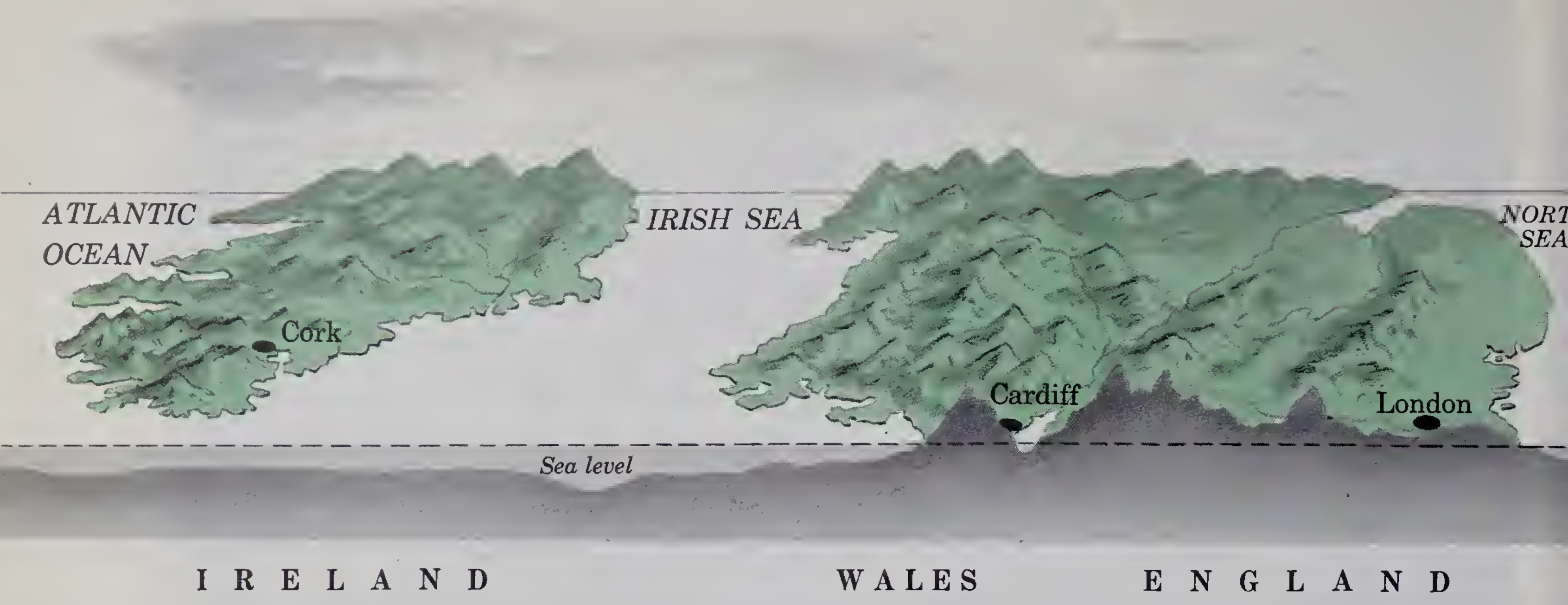
The Atlantic countries of western Europe are the United Kingdom of Great Britain and Northern Ireland, the Republic of Ireland, the Netherlands, Belgium, France, Germany, Luxembourg, and Switzerland. Germany is a divided land. The two parts are commonly called West and East Germany. Two nations in this group are on islands. Two of the nations have no seacoast. The other four nations have long coast lines. A network of roads and railroads crisscrosses all of these lands. This network connects every inland city with the seaports and with other inland cities.

The Atlantic lands contain the most important manufacturing regions of western Europe. Most of the countries contain important coal deposits. These coal regions are the great workshop of western Europe, providing work for hundreds of thousands of people. Farming is important, too. Some of the cities in this region, such as London, Paris, Berlin, Glasgow, Birmingham, and Hamburg, are among the world's largest.

Most of the early settlers of the United States and Canada came from this part of western Europe. Until the 1890's most of our settlers came from the Atlantic lands.

THE UNITED KINGDOM

The British Isles are made up of two large islands and several small ones (see the map, page 122). The islands are occupied by two nations. One of these nations is the United Kingdom of Great Britain and Northern Ireland. The other is the Republic of Ireland.



The United Kingdom includes England, Wales, Scotland, and Northern Ireland. A citizen of any of these areas is a citizen of the United Kingdom. The name "Britain" is a short name used for the country. London, the capital, is one of the world's largest cities and a great cultural center.

The Republic of Ireland, as you see from the map, occupies about three fourths of the island of Ireland. The rest of this island is part of the United Kingdom. Dublin is the capital of the republic.

The United Kingdom is about the size of Oregon, but more than 50,000,000 people live there. The Republic of Ireland is about the size of West Virginia with a population of almost 3,000,000.

A fortunate location

The British Isles are fortunately located for several reasons. The winds from the Atlantic Ocean keep the temperature fairly even and bring plentiful rain. These islands are so near Europe that they easily carry on trade with ports on that continent. As we learned in the introduction to this unit, the Angles and the Saxons settled in Great Britain in early times. There they had an opportunity to develop their customs in their own way. They could learn from their neighbors, but their island stronghold could not easily be invaded.

In fact, Great Britain has not been successfully invaded since the year 1066, when the Normans crossed the English Channel and captured the island. Not again until World War II, nearly 900 years later, was the island of Great Britain attacked. The Germans flew over it in airplanes and bombed it, but were never able to land their troops on British soil.

The development of shipping

Britain's location led its people to develop shipping. Trade was necessary to bring in essential supplies, so a *merchant marine,* or fleet of trading ships, was built. The ships of the merchant marine carried British manufactures to many parts of the world and brought back the food and other supplies the island nation needed. The British planted colonies around the world, in part as a result of their trading activities. Thus the British empire developed.

Trade with the colonies helped the United Kingdom to prosper. Raw materials were imported from its colonies and manufactured at home for use there and for sale abroad. This helped London, a seaport on the Thames River, to grow.

Today many of Britain's former colonies are independent. Most of them belong to the Commonwealth of Nations, a group of nations joined by trade ties and other interests. Some British possessions are still colonies and are governed from London.

The development of industry

The map on page 122 shows that most of England is a plain. A narrow plain also extends across Scotland from coast to coast. In early times the plains were farming areas. One of the chief products of these farms was wool from the large flocks of sheep.

In the late 1700's Great Britain passed through a period of great change called the *Industrial Revolution*. During the Industrial Revolution many machines were invented and put to wide use in industry. Thus a period of change, or revolution, took place in the field of production.

Britain was the first country in the world to experience the Industrial Revolution. One of the important changes it brought had to do with methods of spinning and weaving. The spinning wheel, found in almost every home in the 1700's, was replaced by a machine that spun thread. The hand loom was replaced by the weaving machine. The new machines were so large and heavy that special buildings had to be built to house them. Workers were hired to run the machines. This was the beginning of factories. Other kinds of machines useful in manufacturing a variety of factory products were soon invented.

The workers found it convenient to live close to the factory where they worked. Thus a factory town would grow up where there had been only farm lands or a small village. Factories were one of the results of the Industrial Revolution.

The first factories were small and were run by water power. Some of them were built along the rivers of the plains of England. Many of them grew up on the rivers and small streams that flowed out of the northern hills (see the map, page 126). But nearly all the sites suitable for developing water power were soon occupied.

Then, in 1769, the steam engine was improved and made workable by a Scotsman, named James Watt. The steam engine provided power for a factory by burning coal which heated water and turned it into steam.

Great Britain was fortunate again, for it possessed very large coal fields. Coal mines were opened. Factories grew larger, and more factories were built. Then more coal was needed, and new mines were opened. In this way Great Britain became the first manufacturing nation.

Results of the Industrial Revolution

As a result of the Industrial Revolution Great Britain changed from a land of farmers to a land of tradesmen and of factory and mine workers. It became a nation of cities and towns. Ships brought raw materials from the colonies, and manufactured goods were sold to the colonies and to other peoples around the world. Such widespread British transportation and trade would not have been possible had it not been for the great coal fields at home. Two great resources, its coal and its people, combined to make Great Britain into a world power. A large merchant marine, or fleet of trading

FPG

Saint Paul's Cathedral, with its magnificent dome, is one of the world's finest churches. It was designed by Christopher Wren, who also planned many other buildings in London.

ships, carried the raw materials and manufactured goods. It also brought food to Britain. The merchant marine was protected by the British navy, which patrolled the seas in most parts of the world.

Cities and towns

Today there are manufacturing cities and towns on nearly all the plains of England and of central Scotland. The reason is that the coal deposits of the British Isles lie beneath the plains. Many manufacturing cities have been built in or very near the coal fields. The largest veins of coal are in northern England and beneath the plains to the west, south, and east. On the map (page 126) note the many cities in this region.

Look at the map as we name a few of the great cities of Britain. The large cities near the northern coal fields are Birmingham and Sheffield, famous for iron and steel, Manchester, a cotton-manufacturing center, and Bradford and Leeds, the woolen-goods centers. Farther north is Newcastle, a coal, iron, and steel city as well as a seaport.

Liverpool is the chief seaport for Britain's northern industrial area. Manchester is a seaport, too, since small ocean vessels can reach it through a canal from Liverpool.

Glasgow and Edinburgh are the big factory cities of Scotland. Each is a seaport and near coal fields.

London is an old city. Hundreds of years ago roads from all directions led to a place on the Thames River where the river could be forded. There London grew up. It was the largest city in Britain even before the Industrial Revolution. At the end of World War I, the British empire covered one fourth of the world's land surface. World-wide trade helped London grow. In London Parliament meets and carries on the self-government procedures of the freedom-loving English.

Today London is a great port. It is a center of trade and banking. The British railroad system is centered in London. In one of the suburbs of London is one of the busiest airports in the world. Subways, commuter trains, and many bridges across the Thames help people to move about.

London has also become a large manufacturing center. Its factories make many products that are sold in the city, such as clothing, shoes, household goods, and foods.

London is a mixture of the old and the new. Old palaces, old churches, old bridges, and narrow streets recall its long history. New apartments, factories, subways, and modern docks tell of the busy life of the city today. London is a great cultural center with museums and libraries, universities, theaters, and music halls. The queen lives in Buckingham Palace in London.

This mill makes hundreds of yards of fine woolen textiles each day. Here the machines are combing raw wool. The wool will then be made into yarn, from which cloth will be woven.

British Information Services

SOME BRITISH INDUSTRIES TODAY

British Information Services

This English blast furnace is a very large producer of steel. Two tons of coal must be burned to make each ton of steel. England's steel mills are built near its coal mines.

The old city of Cobh, in south Ireland, is a large seaport where many ocean liners call. It was once called Queenstown, but the Irish have given it the old Gaelic name of Cobh.

Irish Tourist Bureau

Greenwich, a suburb of London, is important to geographers. The prime meridian, an imaginary line which is the starting point for measuring distance east and west around the earth, runs through Greenwich. Points east of the prime meridian are described as being at a certain number of degrees east longitude. Points west of it are at so many degrees west longitude. Find this meridian on the maps on pages 43 and 49.

The rural regions

The United Kingdom still has many farms, which produce a great deal of food. However, it is not enough for the many British people. The islands are important dairy lands, which produce all the fresh milk the country needs. But butter, cheese, and condensed and powdered milk are imported. They are brought from Denmark, Australia, New Zealand, Canada, and other countries.

The farmers in western England are dairy farmers. They also raise beef cattle and sheep on the thick, green pastures. In eastern England large crops of wheat, oats, turnips, and potatoes are raised. But wheat cannot be grown as cheaply as it is in Canada.

Much of the wool used in British factories comes from the hilly pastures of England and Scotland. But some wool is imported.

Northern Ireland

The United Kingdom includes the northern part of the island of Ireland. Ireland lies west of Great Britain.

Belfast, the leading city of Northern Ireland, is one of the nation's shipbuilding centers. Belfast and Londonderry have large linen mills. The farmers of this region grow much flax. In the mills it is made into the Irish linen which is world famous.

THE REPUBLIC OF IRELAND

The Republic of Ireland occupies about three fourths of the island that is sometimes called the "Emerald Isle." The republic was founded after World War I. It has a prime minister. Dublin is the capital city. After Ireland became independent, the old *Gaelic,* or Irish, language was revived. Gaelic is required in schools. Gaelic place names also were brought back into use. Dublin is known as Baile Atha Claith in Gaelic.

Ireland is called the Emerald Isle because it is so green. Mild temperatures and ample rainfall produce rich pastures on the plains. Neat, whitewashed cottages, many of them with straw-thatched roofs, stand out against the vivid green pastures. The Irish farmer's income is principally from livestock, such as milk, beef cattle, wool, mutton, and pigs.

The farms of Ireland are small. The government has started some co-operatives, modeled on those of Denmark, to help the many small farmers increase their income. Ireland has few factories because it lacks coal. Many homes are heated by burning peat. Peat is a tobacco-colored, spongy material composed of partially decayed vegetation. It is dug from bogs, or marshes.

The Irish government has built a large dam on the Shannon River to supply electricity to farmers and to run factories. Shannon has a fine airport. Because of its western location this airport is a servicing center for many planes crossing the Atlantic.

THE LOW COUNTRIES

The Netherlands and Belgium are often called the Low Countries. "Nether" means "low," or "down under." The Low Countries are mostly flat lands. Some of these lands in the Netherlands are actually below sea level. A large area of Belgium is flat, but hills rise in the southeast. Luxembourg, a near neighbor, is a small land of low hills.

The Low Countries together are the size of West Virginia, but they have many more people. This is one of the most densely populated regions of Europe.

The people of the Netherlands speak Dutch. The people of northern Belgium speak Flemish, a language somewhat like Dutch. Those of southern Belgium speak French. The people of Luxembourg speak German. In spite of the difference in languages the people are good neighbors.

History of the Low Countries

The region of the Low Countries was once ruled by Charles V of Spain. Charles was born in Ghent, Belgium, but he inherited the throne of Spain from his mother. At this time these low lands were called the Spanish Netherlands.

Charles V ruled cruelly, and the Dutch revolted. The Spanish soldiers could not put down the revolt. So the Netherlands became independent of Spain in 1581.

Belgium remained under Spanish rule for many years. Later, as a result of wars in Europe, it was passed back and forth between nations. When Napoleon came to power in France, his armies conquered Belgium. After Napoleon's defeat, Belgium was joined to the Netherlands. But the Belgians did not like this arrangement. They revolted and became an independent nation under their own king.

The history of Luxembourg has been much like that of Belgium. After the Belgians gained their freedom, a peace conference recognized Luxembourg as independent. Luxembourg has a parliament elected by the people. Its ruler is a grand duchess.

Living in the Netherlands

The location of the Netherlands is a favorable one. In a small area the industrious Dutch people developed a prosperous nation. Soon after they became independent, the Dutch became one of Britain's strong rivals for trade on the seas and in the founding of colonies. We remember that the

Standard Oil Co., (N.J.)

Many Dutch people live near canals like this one outside the city of Haarlem. Goods can be shipped easily and cheaply by water on the rivers and canals all over the Netherlands.

Dutch founded New York as New Amsterdam. But the British defeated the Dutch in a war in the 1660's, and the Dutch challenge to Britain was removed. Nevertheless, the Netherlands founded a large overseas empire in the islands off the coast of Asia.

The Netherlands is located at the mouth of the Rhine, the busiest river in Europe. This fact has been important in the country's development. Two other rivers, the Maas and the Scheldt, flow through the Netherlands. Because of this, the country has large seaports. Products that are sent to eastern Belgium, to Germany, and to Switzerland are landed at one of the Dutch ports. Then they are shipped inland on the rivers and canals. Products from these countries are also exported from one of the Dutch ports to other lands. Dutch ships carry Dutch, German, Belgian, and Swiss products to many parts of the world. Commerce is the leading activity of the Netherlands.

Rotterdam and Amsterdam are the largest cities and seaports of the Netherlands. Rotterdam is built on one of the branches of the Rhine. Amsterdam is reached from the sea by the large North Sea Canal. Many small canals thread the city, and houses are built right on their banks. Amsterdam has more than 350 bridges to permit people to cross the waterways. Amsterdam is the official capital of the nation, but the Dutch royal family resides in the Hague, near the North Sea. The Hague is also the home of the International Court of Justice.

The Dutch have built great dikes to keep the North Sea from flooding their land. About one fourth of the country lies below sea level on land that has been reclaimed from the sea. Windmills and gasoline engines are at work constantly pumping water to keep the reclaimed land dry. Much of the sea called Zuider Zee has been drained. This man-made land is fine for farming.

The dairy cattle of the Netherlands supply fresh milk to cities. Cheese is a famous Dutch product. Near the cities of Haarlem and Leiden stretch field after field of flowers.

When in bloom, these fields of tulips, lilies, and daffodils are a gay sight. Flower bulbs are shipped to gardeners all over the world, and freshly cut flowers are flown daily to many cities in Europe.

The seaport cities of the Netherlands process many raw materials from overseas. Skilled craftsmen cut and polish diamonds. Because the country has only a little coal, it does not carry on heavy industries.

Living in Belgium

The people of Belgium differ from those of the Netherlands in their ways of making a living. Because it has a large coal field and because it has a large population, Belgium is a beehive of manufacturing. Needed raw materials are imported through Belgium's seaport of Antwerp. Belgium has some zinc and some iron. But most of the iron ore used in its steel mills is brought from Luxembourg and France.

The factory towns are built on the coal fields of the Meuse River valley (see the map, page 126). Steel is made there, and locomotives, heavy machines, and railroad cars are manufactured. Zinc ore is smelted and the zinc is used in many products.

Brussels, the capital of Belgium, is one of the largest cities of Europe. Its factories are noted for fine tapestries, carpets, and laces.

The flat plain of western Belgium has fine farm lands. The farmers have dairy cattle, grow many vegetables, flower seeds, and bulbs, and raise flax. The flax is made into fine linen at Ghent and near-by towns.

Living in Luxembourg

The people of Luxembourg, which is about the size of Rhode Island, make a living very successfully. A large field of iron ore lies within its borders, and many people work in the mines. Coal is brought to the country from near-by Germany, Belgium, and France. Luxembourg has large iron-and-steel mills. Iron ore is mined, and iron and steel are manufactured in enormous quantities in this small country. The city of Luxembourg is the capital.

GERMANY, A DIVIDED NATION

Germany entered the Industrial Revolution much later than Britain, but after 1880 its industrial development was very rapid. Like Britain and Belgium, Germany has many workers and large supplies of coal. Raw materials for use in the factories and some food supplies are imported. The products of the factories are exported.

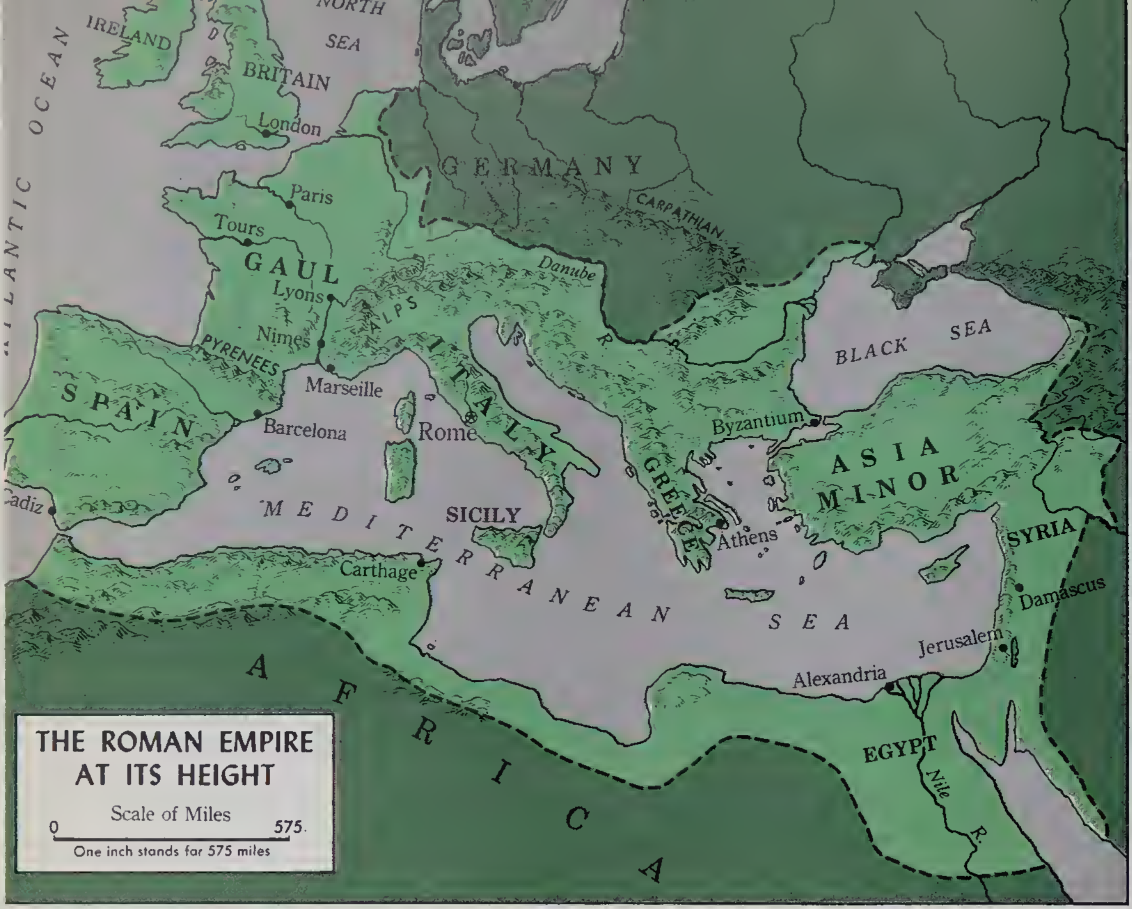
Germany in the past

In early times Germanic peoples lived east of the Rhine and north of the Alps Mountains. During the height of the Roman empire, they lived in villages in the great forests of the region. They worshiped pagan gods. By the year 800 A.D. the people in what is now Germany had come under the rule of Charlemagne. Charlemagne was a king of the Franks who had expanded his kingdom to include a large part of western Europe. He was a Christian ruler.

Soon after the death of Charlemagne, his empire was divided among his three grandsons. One took the west—that became France. Another took the east—that became Germany. The third took the south—the northern half of the peninsula of Italy and an area across the Alps. About one hundred years later a new empire, called the Holy Roman Empire, came into being. This empire was made up of the Christian peoples of central Europe. It included what is now known as Germany.

EUROPE FROM ROMAN TIMES TO THE MIDDLE AGES

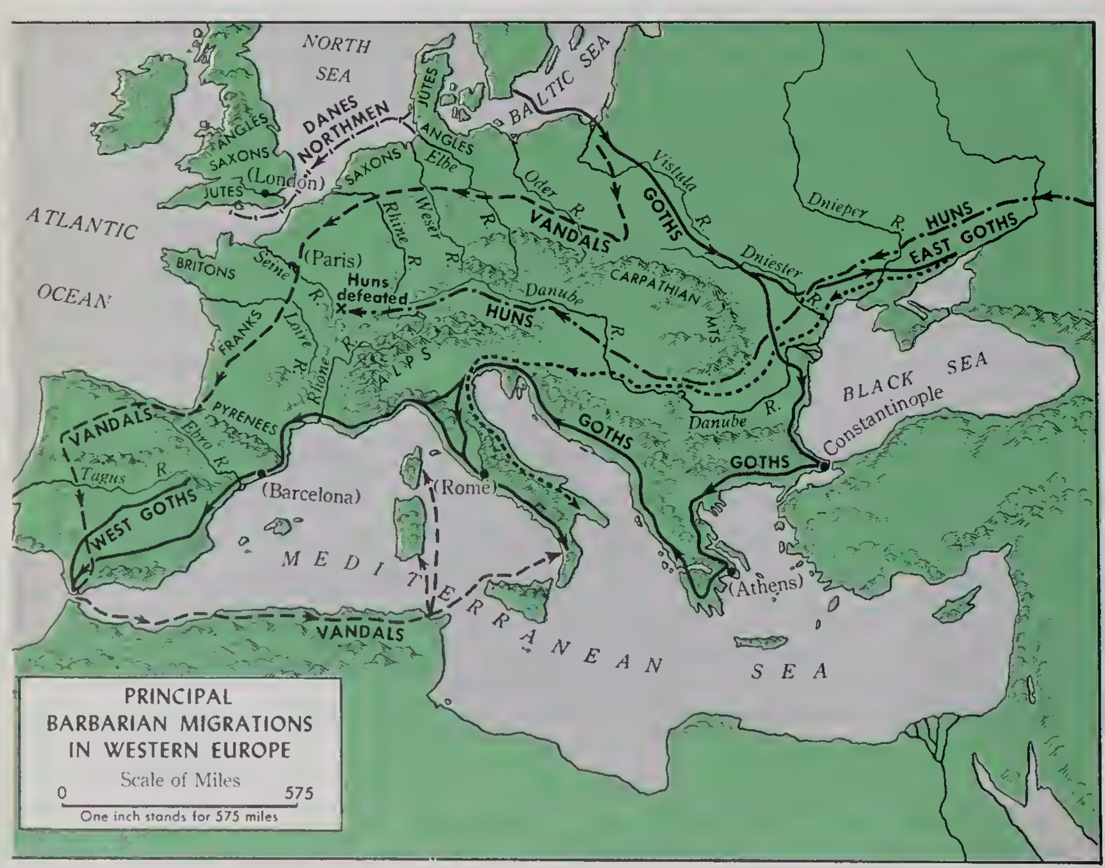
The Romans built many roads when they occupied Britain. What cities did these roads connect? Find the Roman walls. Why were they built? What part of Britain did Alfred rule? Who ruled the rest of the island at that time?



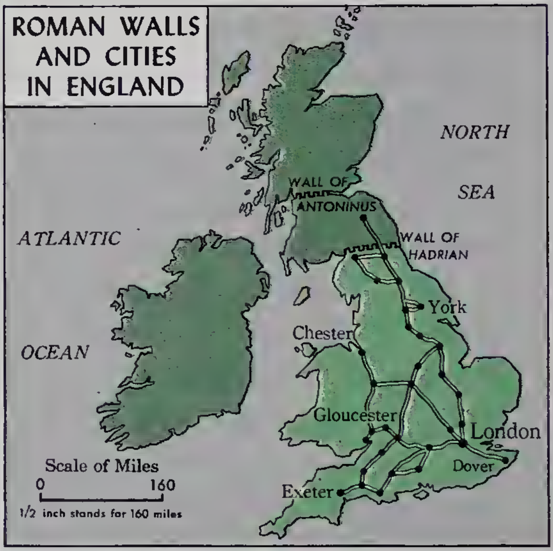
THE ROMAN EMPIRE AT ITS HEIGHT

The map above shows the Roman empire at its greatest extent. On the map, page 122, find the modern nations it included. What great cities of today were in the empire?

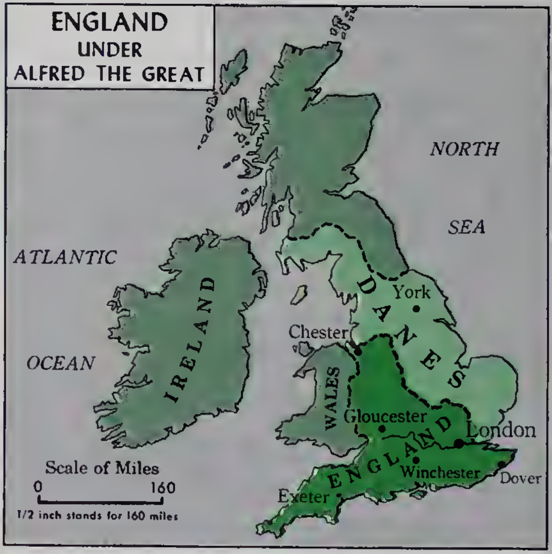
On the map below follow the routes of barbarian tribes across Europe. Where did the following finally settle: Angles? Saxons? Danes? Franks? Which one took Rome?



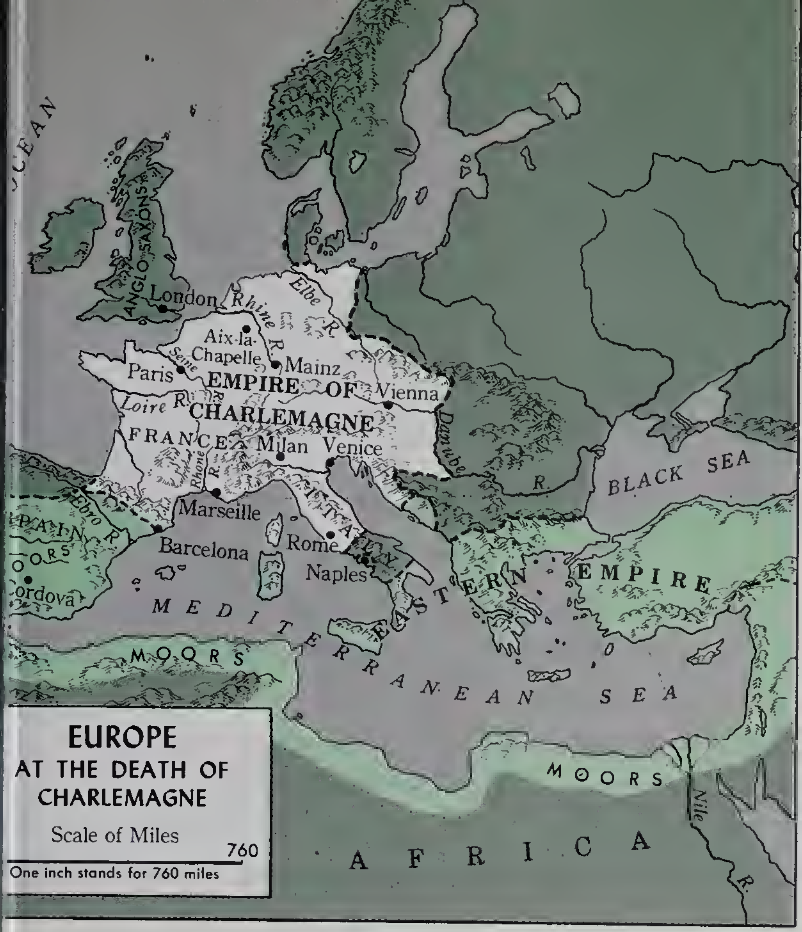
PRINCIPAL BARBARIAN MIGRATIONS IN WESTERN EUROPE

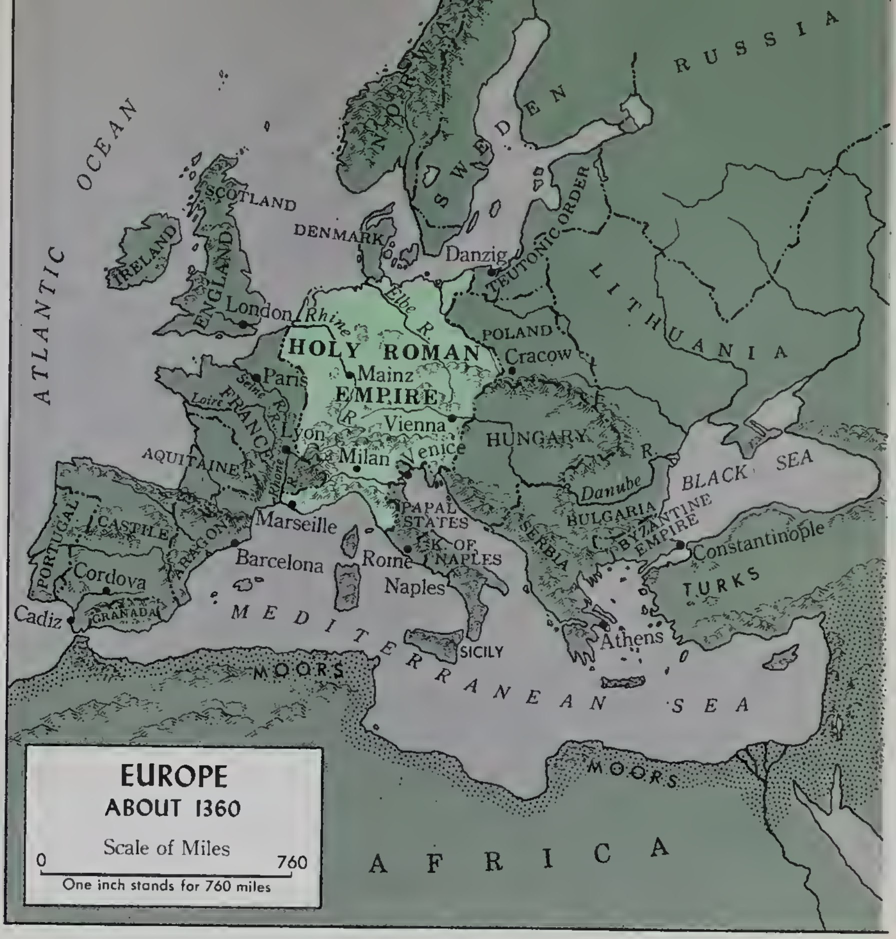


ROMAN WALLS AND CITIES IN ENGLAND



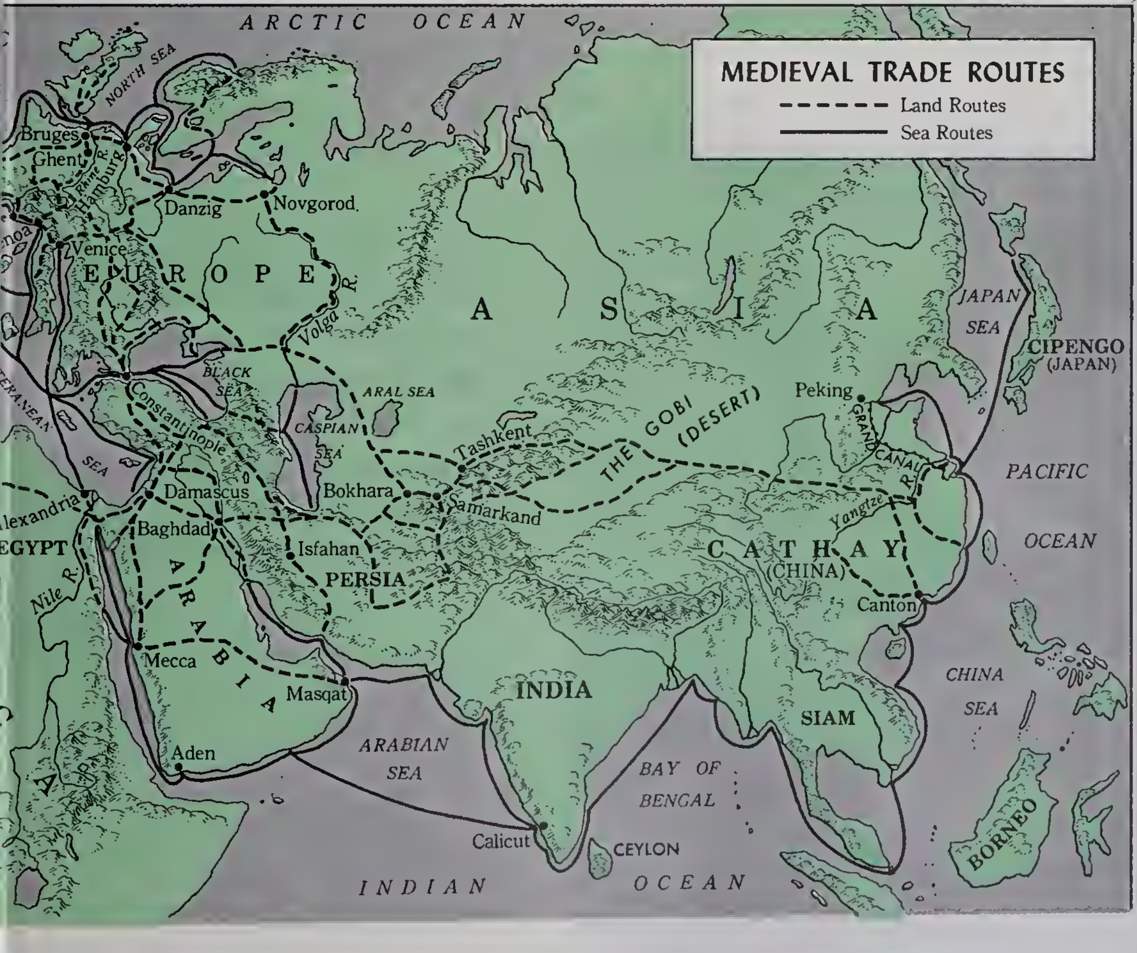
ENGLAND UNDER ALFRED THE GREAT





Charlemagne, a strong king of the Franks, united much of western Europe under his rule. He built up a great empire and in 800 A.D. was crowned emperor in Rome by the Pope. Parts of what modern nations did his empire include? See the map, page 122.

After Charlemagne's death his empire was divided. In time the western part became France. The eastern part and northern Italy were united as the "Holy Roman Empire" and included the area shown above. Its German ruler was crowned emperor by the Pope.



After the crusades, trade in Europe began to grow. The cities of Venice and Genoa became powerful by controlling trade with the East. What other cities of Europe and Asia were great trading centers?

In modern times two powerful German states developed. One was Austria, in south-central Europe. The other was Prussia, in northern Europe. The two became rivals.

Prussia had a number of strong kings who gloried in war. One of these was Frederick the Great. With his well-drilled army he went to war against his neighbors and seized much territory for Prussia. But he also did things for the welfare of his people by promoting education and science.

The kings who followed Frederick were also interested in building up Prussia's strength. When William I came to the throne, his prime minister was Count von Bismarck. Bismarck was a stern-minded patriot who wanted to unify all the Germans under the leadership of Prussia. Bismarck built up a great army. With it he waged three wars—against Denmark, Austria, and France. Bismarck's army won all three wars.

In 1871, at the end of the war with France, a united Germany was proclaimed. The many German states, except for Austria, joined Prussia to form Germany. Berlin, the capital of Prussia, became the capital. The new Germany became one of the most powerful nations in Europe.

Germany had been united by war. Now its leaders dreamed of a world empire. At the beginning of World War I, in August 1914, the emperor of Germany sent his army against France. Great Britain, France's ally, came to France's aid. Many other nations joined the fight against Germany. These nations were known as the Allies. As you know, the United States entered the war in 1917 and supplied many troops. In the end Germany was defeated in 1918.

After its defeat Germany became a republic. But the republic was short-lived. A leader named Adolf Hitler came to power in Germany. Hitler built up a great army. He said that Germany needed more land and prepared to take it by force. When he sent his armies into Poland in 1939, Great Britain and France came to Poland's aid. World War II had begun.

Hitler's armies were strong. They took over France with little trouble. Then Hitler attacked Germany's powerful neighbor to the east, Soviet Russia. But his military

Ewing Galloway

The large machine-tool factory shown here is in West Germany. Tools that are made there are used in manufacturing metal products. West Germany ranks second in the world in exporting machinery.

German Tourist Information Office

Much of West Germany's trade with countries overseas passes through the port city of Hamburg. Also at Hamburg, transatlantic passenger vessels like this one take on and discharge passengers.

machine was stopped by the Russians, who fiercely defended their homeland. In the meantime the Allies on the western front had gathered strength. In May, 1945, the victorious armies of the United States, Britain, and France moved into Germany from the west. The Russians marched in from the east. These armies met in Berlin and occupied the city and all of Germany.

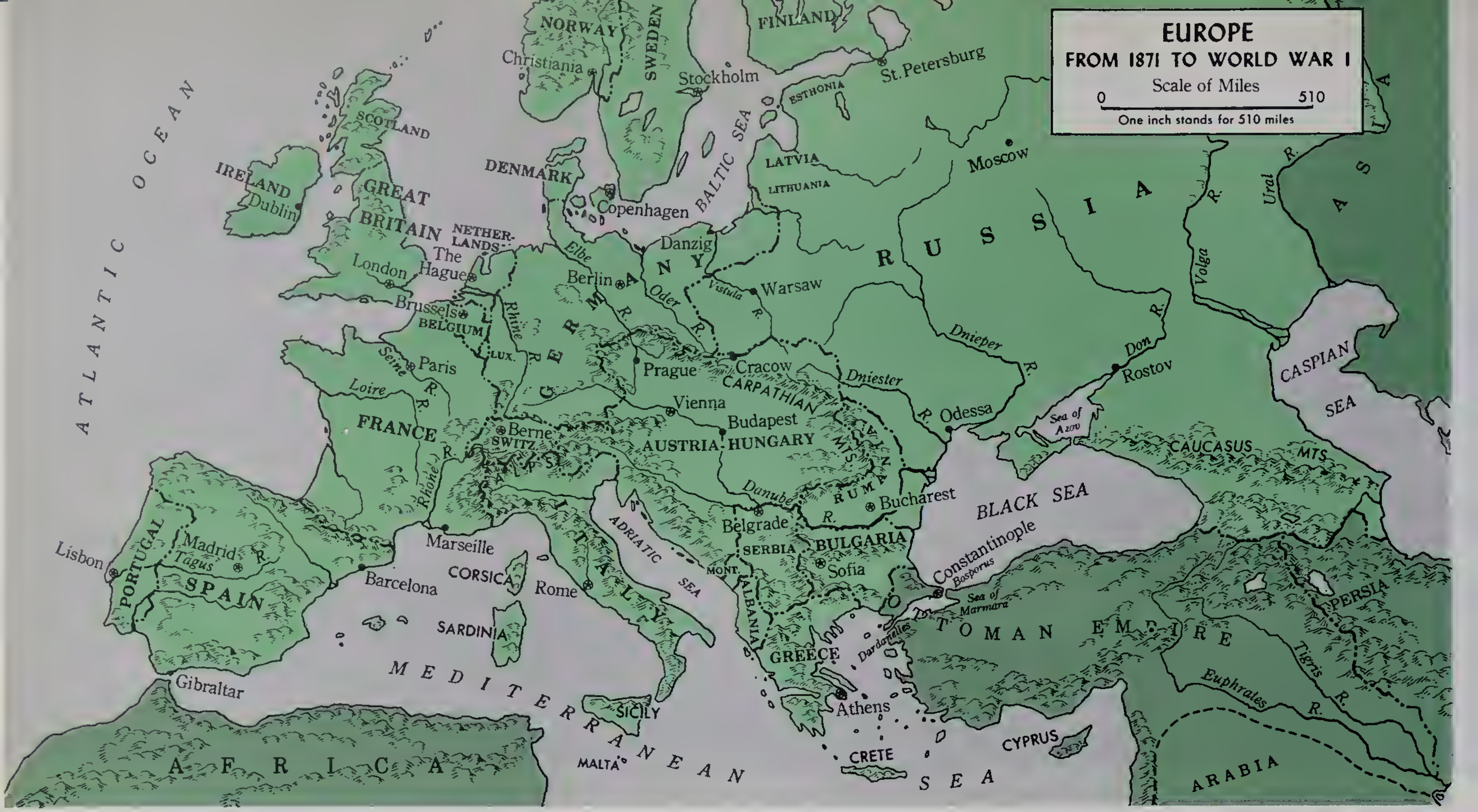
After the war Germany was divided into two parts, West Germany and East Germany. Berlin was also divided. The western part of the city, or West Berlin, is a part of West Germany. As the map on page 153 shows, this part of Berlin is surrounded by lands of East Germany. The eastern part of Berlin is in East Germany.

Germany today

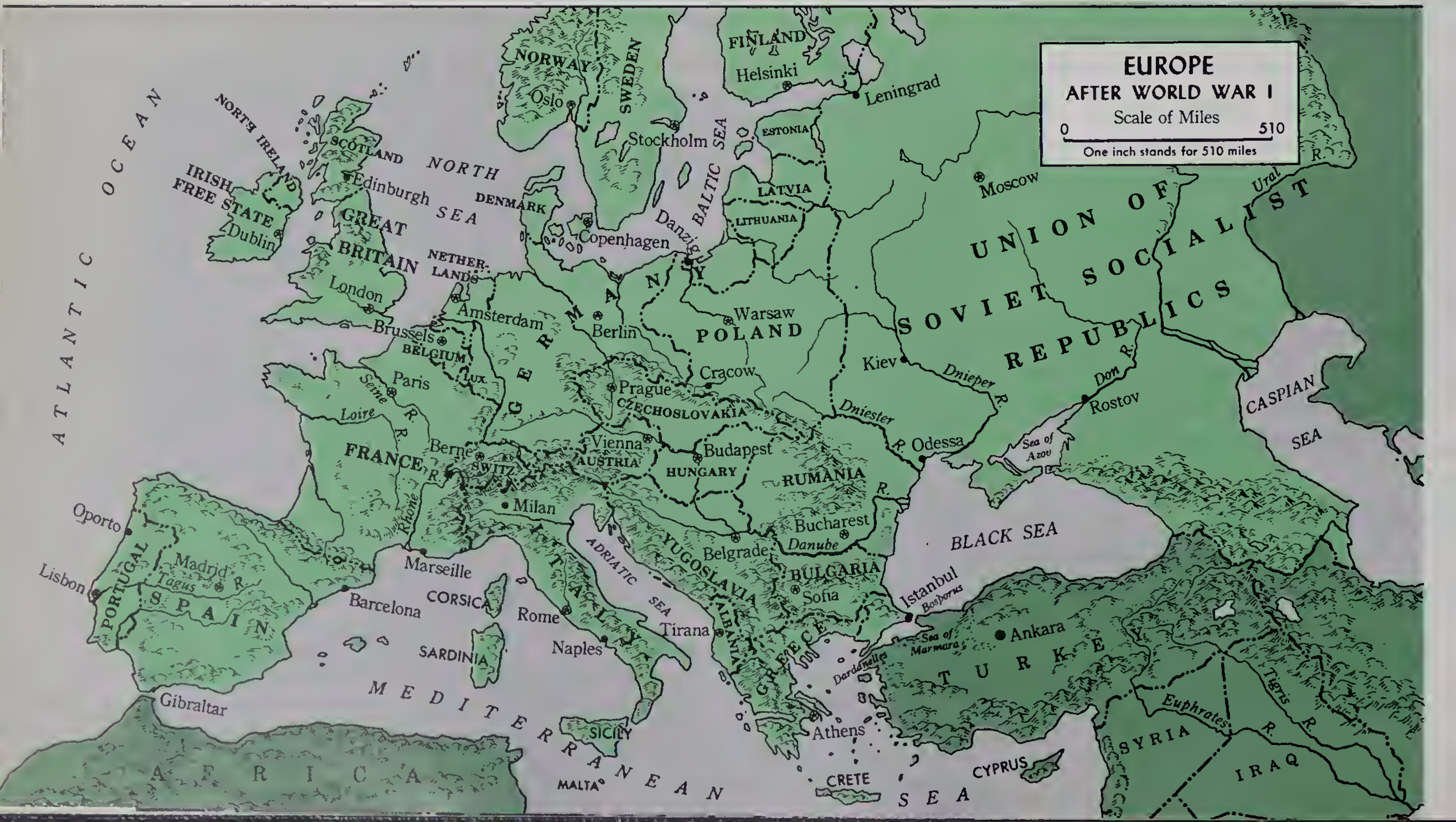
Germany is still divided. Today West Germany, known as the Federal Republic of Germany, is an independent nation. It has a constitution and free elections. Its capital is Bonn, a city on the Rhine River.

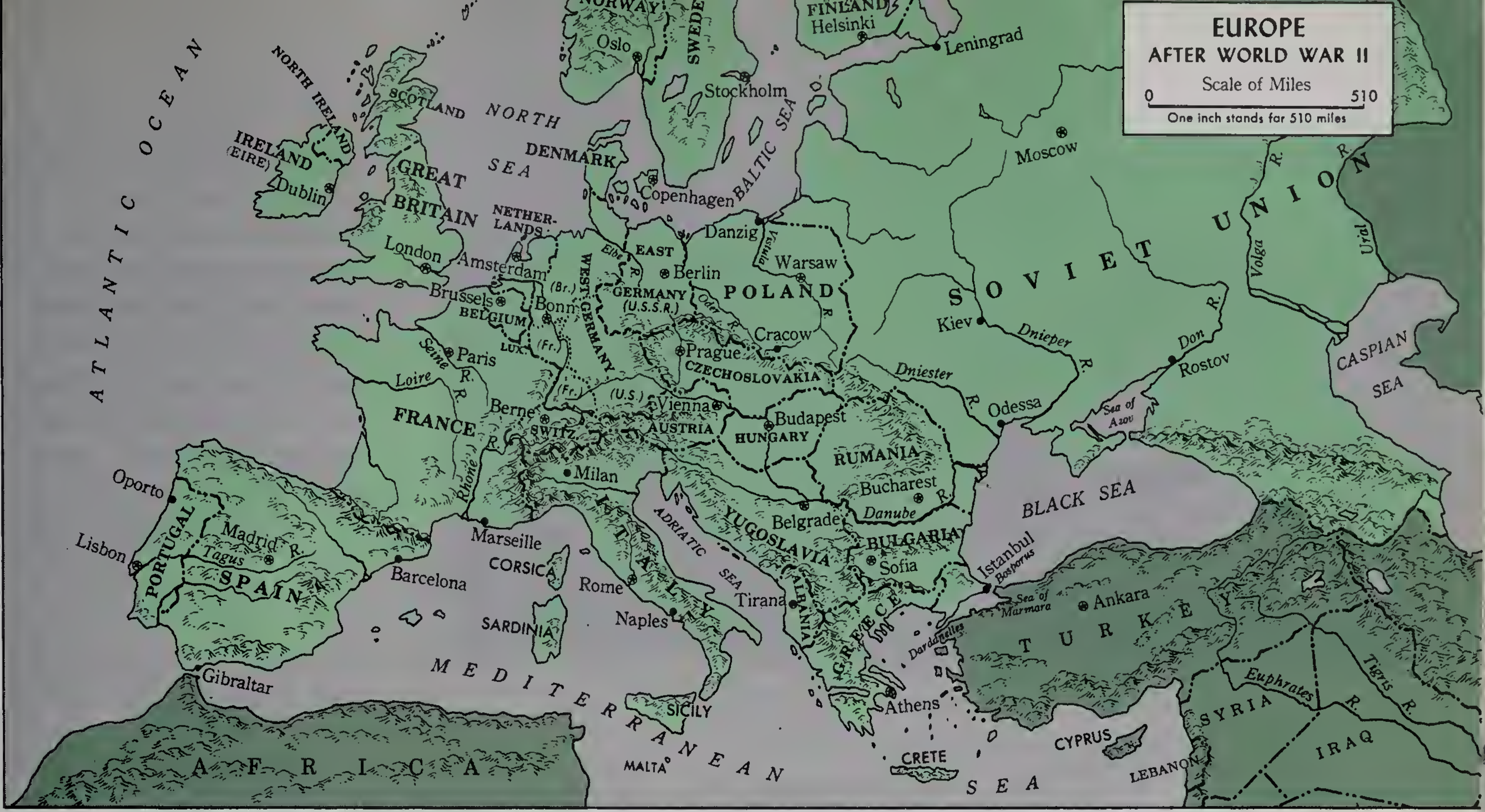
East Germany is still under the control of the Russian government. It is a *satellite* nation. The word *satellite* means "one who follows." East Germany follows the lead of Soviet Russia in all important matters. The leaders of its government are Communists, who do the bidding of their Russian masters. Other countries under the domination of the Soviet Union are also satellite nations.

West Germany is a little smaller than Oregon, but it has almost one third as many people as the United States. Since World War II, the people have regained their former high place in manufacturing. Under their free government and their new school system, rebuilt since the war, the people of West Germany are moving ahead.



By 1871 many modern nations had been formed in Europe, shown on the map above. Some of them began to build large armies to protect themselves and to increase their power. As time passed, two groups of nations banded together, each to oppose the other. Germany, Austria-Hungary, and Italy led the Central Powers. The Allies were Britain, France, Russia, and several other nations. The Allies won World War I, and many changes came to Europe, as you can see from the map below.





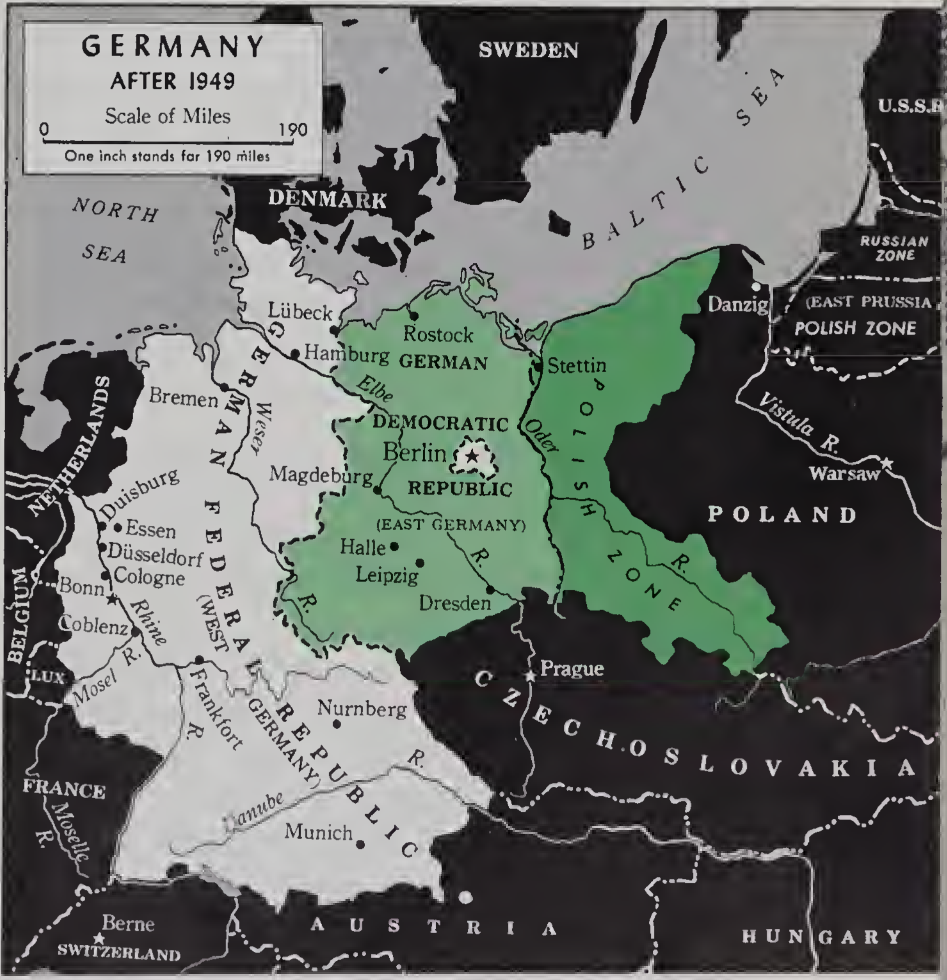
EUROPE IN MODERN TIMES

A few years after Germany's defeat in 1918, Adolf Hitler rose to power. Led by Hitler, the Germans rearmed. They seized Austria and Czechoslovakia. In 1939 they attacked Poland.

Great Britain, which had a treaty with Poland, declared war on Germany. Other nations joined Britain. World War II had begun. Germany had made a partnership, called the Axis, with Italy and Japan. Italy now entered the war in Europe on the side of the Axis.

In 1941 Japan attacked our naval base at Pearl Harbor in Hawaii. This brought the United States into the war. World War II ended in 1945 with an Axis defeat.

The map at the right shows how Germany was divided in 1949. The two countries are often called East Germany and West Germany. What is the official name of each county?



Thomas Hollyman from Photo Researchers

This view taken in West Berlin shows one of the main boulevards of this rebuilt prosperous city. In 1961 the Russians built a wall between East Berlin and West Berlin. Troops stationed along the wall forcibly prevent people from going from one part of the city to the other.

Cities on the Rhine

The Rhine River flows from the Alps of Switzerland to the Netherlands. Much of its course is through West Germany. For part of the way the Rhine forms the boundary between West Germany and France (see the map, page 122).

On the banks of the Rhine are important German cities. Some of these manufacture chemicals. Others make automobiles, machinery, and similar products. River barges carry raw materials and goods from place to place. Railroad trains along the banks of the Rhine also move people and goods. A city of at least 100,000 persons is located every few miles along the Rhine, except in the Rhine Gorge.

The Rhine Gorge is a deep valley along the part of the river where it flows through hills and low mountains. The gorge has been a favorite subject of painters and writers for hundreds of years. Ancient castles crown the hilltops, and grape terraces cover many of the hillsides along the river. This district is famous for the wine made from its grapes. Coblenz, at the junction of the Mosel River with the Rhine, is the only city in the gorge. Bonn, the capital, is located near the point where the Rhine leaves the gorge and flows into the plain again.

Cities of the Ruhr Valley

The Ruhr River is a very small stream that flows into the Rhine. But the Ruhr Valley is famous because it contains the largest single coal field in western Europe. So many mining and manufacturing cities have grown up in this valley that the area today seems to be one continuous city. Essen, the largest of the Ruhr cities, is an important iron, steel, and machinery center. The city of Duisburg, located where the Ruhr flows into the Rhine, is Europe's largest and busiest river port. Düsseldorf, on the Rhine, is the banking and commercial center for the cities of the Ruhr Valley.

Where does the Ruhr obtain the iron ore it needs? A little of it comes from West Germany. Most of it, however, comes from the iron mines of France, Luxembourg, and

Sweden. The Ruhr has enough coal to supply to neighboring nations in exchange for the iron ore.

Other important cities

Some cities of Germany do special kinds of manufacturing. For example, some towns specialize in making clocks. Others make fine leather goods.

Munich, in the south, near the Alps, is an important transportation and commercial city. Hamburg and Bremen, in the north, are the great seaports of West Germany. But the cities of the Rhine and Ruhr valleys market their products through Dutch ports at the mouth of the Rhine.

Farming in Germany

The Germans are excellent farmers. Areas in rural Germany are as neat as a well-kept park. Fine farm homes and well-built barns dot the countryside and the farm villages. The barns are sometimes decorated with carvings.

The farmers along the North Sea, who live between the Netherlands and Denmark, make their living from dairy cattle. The farmers of the south, who live in the hilly lands north of the Alps, also engage in dairying. Dairy farmers make much cheese.

In central Germany the farmers grow rye, potatoes, oats, and sugar beets. The Germans bake bread from their rye. German farmers also raise hops and barley, which they use in brewing beer.

SCENIC SWITZERLAND

Switzerland is a little larger than Vermont and Connecticut together. It has nearly 5,500,000 people, or almost as many as live in New Jersey. The Swiss, like the Danes and the Dutch, manage to be very prosperous in a small area. Half of the Swiss people work in manufacturing. About one in five makes a living in the tourist business. These two activities together help support many workers in transportation. Most of the rest of the people engage in farming.

Switzerland in the past

Switzerland has been a republic for more than six hundred years. The republic began in a mountain meadow, when the people of three districts, called cantons, banded together to fight for their freedom. Later other cantons joined the group.

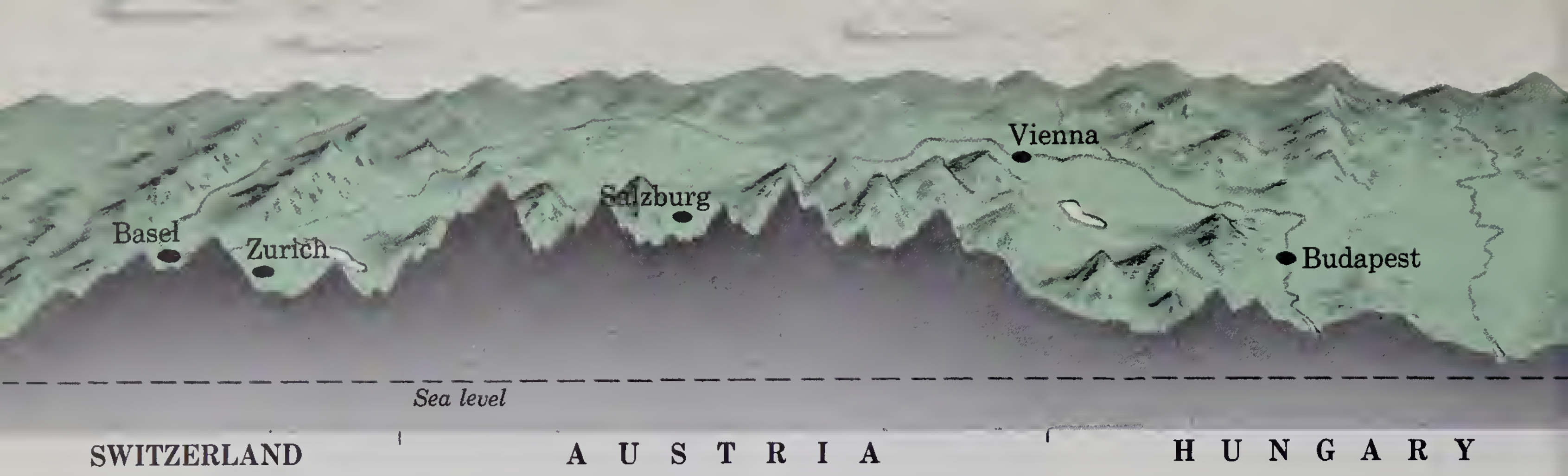
Switzerland as a nation has stayed out of war. When a nation does not take sides in a war, it is called a *neutral* nation. Even during World Wars I and II, when warring nations surrounded it, Switzerland remained neutral.

Switzerland has been the home of a number of international organizations, or organizations to which many nations belong. For example, Geneva is the home of the International Red Cross, and Bern, the capital, is the home of the International Postal Union. Geneva is also the place where international conferences are held.

Three regions and three languages

Switzerland has three different natural regions. To the north there is a low range of mountains, called the Jura Mountains. The mighty Alps cover western and southern Switzerland. In the midland area, between the Juras and the Alps, are most of the nation's cities. This area is also the most important farming region of the nation.

Let us draw a line from north to south across Switzerland at the capital city of Bern. West of this line the language of the Swiss people is French. Geneva, for example, is



a French-speaking city. East of this line the language is German. The people of Lucerne, Basel, and Zurich speak German. South of the Saint Gotthard Pass, in the valley of the Ticino River, the Swiss people speak Italian. But the Swiss are one people in whatever region of Switzerland they live or whatever language they speak as their native tongue.

Many skilled workers

Switzerland has no metals for use as raw materials in its factories. But to make the products in which they specialize, the Swiss require only small amounts of raw materials. For example, Switzerland makes more watches than any other country in Europe. A watch, which is a small article, needs only a small amount of metal. The steel, silver, and gold used in Swiss watches are imported. But the making of a watch requires more than materials. Skilled workmanship is the most important ingredient, for the value of a watch lies mainly in the way it is made. The Swiss workers make such good watches that they sell many of them. Swiss watches have a world market.

Among other articles made by the Swiss are clocks, cameras, microscopes, glass eyes, electrical equipment, and sewing machines. Skilled workmanship is an important part of the manufacture of all these products.

Nearly all the Swiss factories are in the cities in the midland region or in the valleys of the Jura Mountains. The power for the factories is furnished by the waterfalls of the Alps. Electricity is plentiful in Switzerland. Swiss trains are also run by electricity.

Swiss farms

Farming is important in the central area of Switzerland. This is a great dairy region. There are dairy farms in the valleys of the Alps, too. When the snow has melted in the spring, the farmers of this region drive their cattle, sheep, and goats to mountain pastures. During the summer they make cheese in dairies on these high pastures. Quantities of cheese and milk chocolate are exported. Farmers grow grains and fruits and have vineyards, but the crops are for home use.

A tourist land

Thousands of tourists visit Switzerland each year. Some come during the summer to enjoy the cool weather and the beauty of the lakes and snowy peaks. Others come in winter for skating and skiing. Tourists bring much business to Switzerland. Some of the money spent by tourists pays for the food and raw materials that Switzerland must import. Thus scenery may also be counted as a product of Switzerland.

Other ways of working

Many Swiss earn a living in transportation. Swiss railroads move the manufactured products and farm products of northern Europe to markets in Italy. Coal from the Ruhr is shipped southward, too, by the trainload. Returning trains bring Italian silks, fruits, and other products to the northern lands.

The Swiss are noted for their honesty and for their thrift. They have also proved themselves to be good bankers. Many foreigners keep part of their money in Swiss banks because Switzerland has always been a neutral country. They believe that their money will be safe there.

LIVING IN FRANCE

The pleasant land of France borders on three bodies of water (see the map, page 122). France has ports on the Mediterranean Sea, on the Atlantic Ocean, and on the English Channel. France is about four fifths as large as Texas. But the population of France is almost one fourth that of the whole United States.

France in the past

In ancient times France was a part of Gaul. Julius Caesar, a Roman general, conquered Gaul and made it a part of the Roman empire. For many years the Roman empire included large areas of western Europe. When Rome lost its power and could no longer keep order, German tribes moved down from the north. One tribe, called the Franks, moved into the region that is now France and settled there. By the year 800 A.D. the land of the Franks was a part of Charlemagne's empire. After Charlemagne's empire broke up, the Normans swept across the North Sea and settled in northern France. They conquered and ruled a large area.

During these early times Paris was a little town on an island in the Seine River. The kings of this region gradually became more powerful. Eventually, France became a nation with Paris as its capital.

The people of France developed a fine way of life. The nation became a center of art and learning. Its people love freedom. A few years after the United States became independent, the French people rebelled against their selfish king. In the French Revolution they dethroned their ruler and set up a republic. But this republic did not last long. A French general named Napoleon seized control of the government and made himself emperor. Napoleon ruled as a dictator, and his armies conquered much of Europe. But several nations joined together and defeated him in 1815.

In 1914, when World War I began, France was attacked. At the end of four years Germany was defeated. But France was left weakened by the war. In 1939 Germany again attacked France. This time its armies overran the country and occupied Paris. Six years later the armies of Great Britain and the United States liberated France. And the nation again began the slow task of recovery after the war.

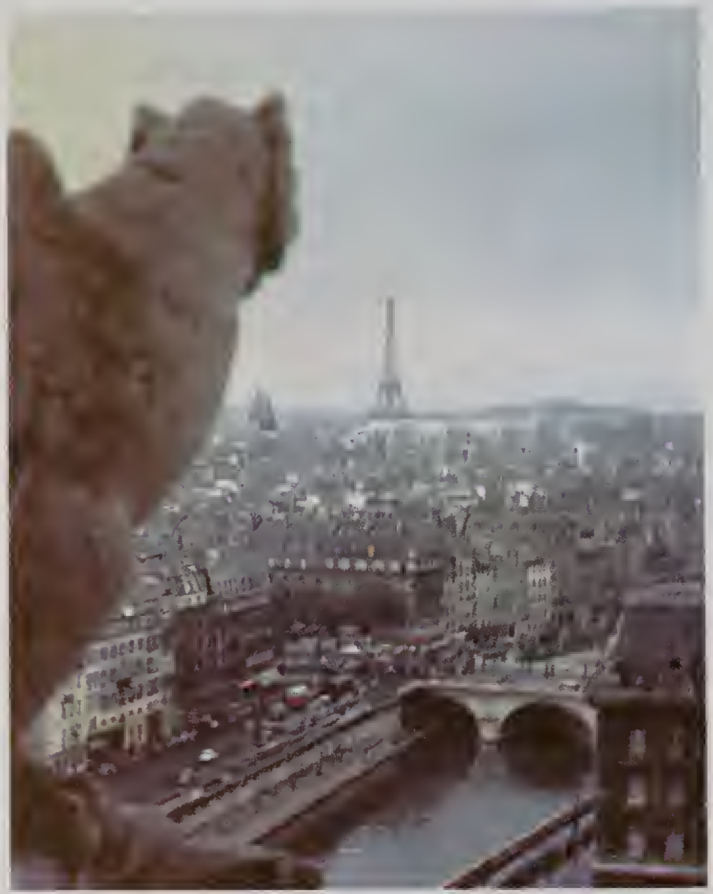
Today Paris has nearly 3,000,000 people. All the main railroads and highways of France lead to Paris. The network of canals in western Europe leads into the Seine River, on which Paris is located. The airport at Paris is served by planes that connect the city with other major cities.

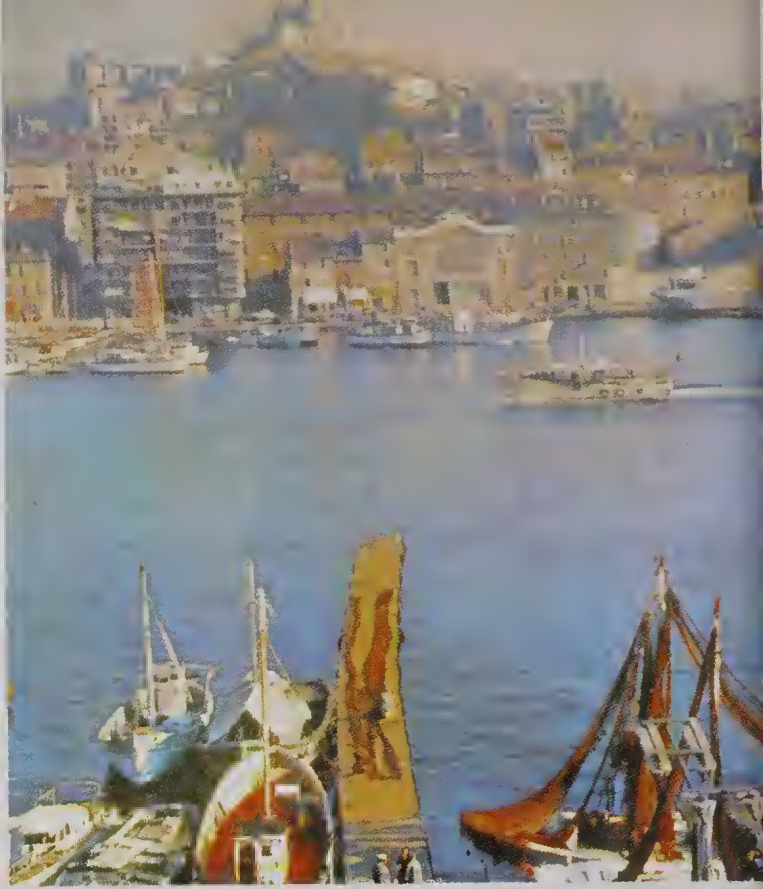
Paris is one of the world's most beautiful cities. One of the French rulers rebuilt Paris into a city of parks and wide streets. Art galleries, museums, old palaces, and theaters make Paris a cultural center that people from all over the world delight to visit.

VIEWS OF FRANCE

The picture below shows the Seine and the Eiffel Tower far away. The stone figure is on Notre Dame, where the picture was taken.

Mildred Troup, New York



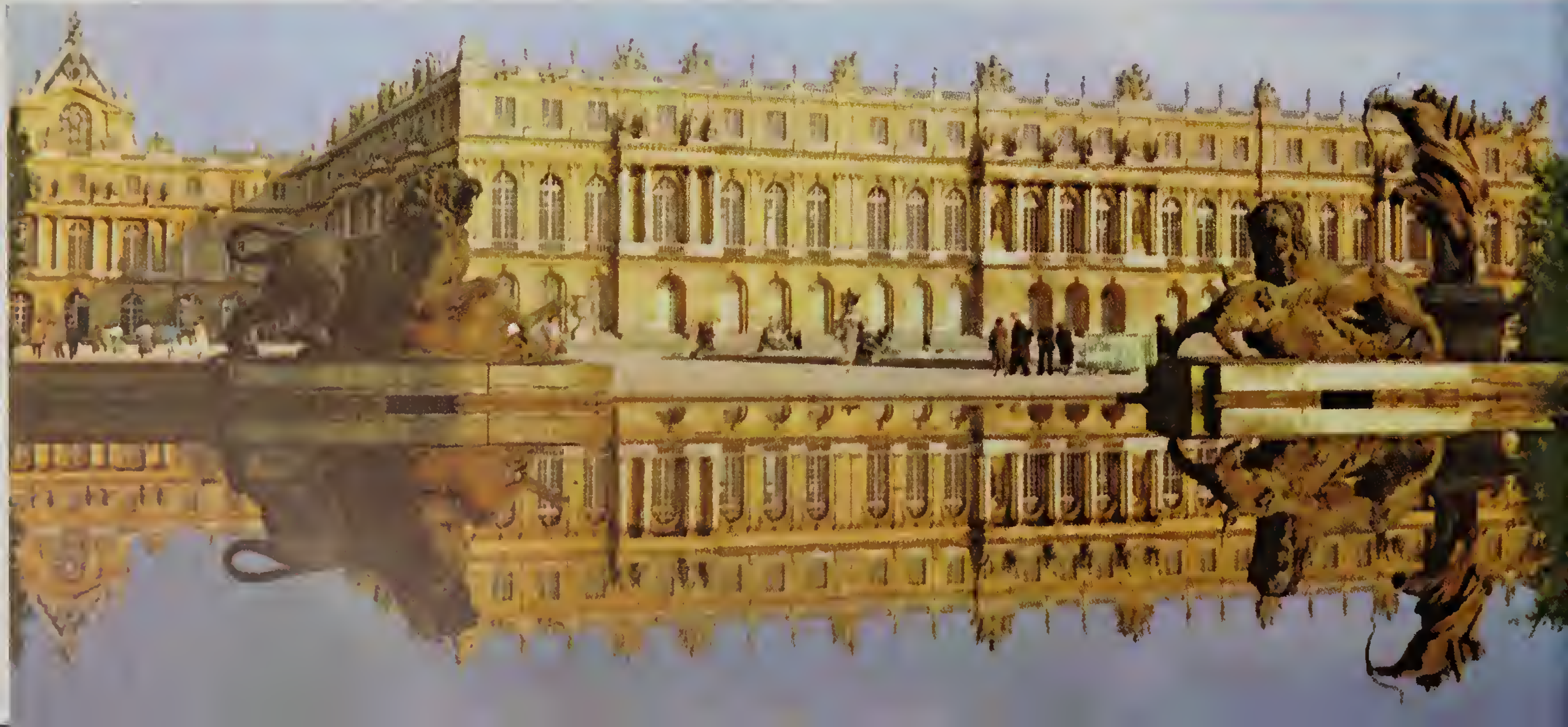


French Government Tourist Office

Above is Marseille, whose fine harbor has made it a busy trade center for over two thousand years. Note the church on the hill. Its steeple can be seen from far out at sea.

The Palace of Versailles, shown below, was built by Louis XIV as a hunting lodge. It is now a national museum where visitors enjoy lovely gardens, fountains, and works of art.

Ewing Galloway



Paris has no skyscrapers because the law forbids the constructing of high buildings in the city. The one exception is the Eiffel Tower, which rises to a height of nearly one thousand feet. The top of this tower is a fine place from which to view the city.

The factories of Paris are located in the suburbs because the French do not want the smoke of factories to mar the beauty of the city. The manufacture of automobiles is an important industry.

A fine farming country

France is the warmest of the Atlantic lands. Southern France has a region with a Mediterranean climate. Four of every ten Frenchmen make their living on farms. Among the lands of Atlantic Europe, France comes the nearest to producing enough food for its own people.

Abundant crops of wheat are produced on the western and northern plains. Sugar beets are raised in the north. There are dairy farms along the English Channel, in the central uplands, and in the French Alps. Thousands of sheep graze in the central uplands and in the Pyrenees Mountains. The milk of sheep is made into the Roquefort cheese for which France is famous. Southwestern France has the long, hot summers needed to grow corn.

The lands near the Mediterranean Sea are covered with vineyards. East of Paris the vineyards are smaller, but the best-known wines of France are made there.

The farmers of southeastern France raise many flowers. The oil from their petals is made into perfume in the city of Grasse. France is famous for perfumes and cosmetics.

A visit to a farm

Let us visit a French farm in northern France, not far from Paris. In many ways this farm area is like other farming regions in Europe. So, with our visit, we can see how most farmers of western Europe live.

We drive along a tree-lined, paved road. Many of the trees are tall poplars. We pass fields of wheat and of sugar beets. We see farmers at work, but we see few farmhouses. Most French farmers live in villages.

As we reach a village, we see white houses, many of them with red roofs. We drive on streets paved with cobblestones to the central square. A great church is on one side of the square. Market stalls are on the other. Some homes also face the square.

Our host, Monsieur Laval, who speaks English, welcomes us.

"This is a farm village," he tells us. "Nearly everyone who lives here owns a farm. The farmers go out to their fields in the morning. They work there all day and return in the late afternoon. Our chickens, geese, pigs, horses, and cows are kept here in the village, too. In cold weather the cows are driven in from the pastures every night. In summer they stay in the pastures."

We see no fences between the fields. The fields and farms also seem small. We ask Monsieur Laval about this.

"A few pastures are fenced," he replies. "But usually a young boy or girl, or an older member of the family, watches the cows and keeps them out of the crops. This is a less expensive way to protect our crops than buying posts and wire for fences."

"The farm plots are small," our host continues, "because almost all French farmers have several fields in different places. A farmer's fields may lie in several directions from the village. So he has to spend a great deal of time traveling from his village to his fields. But he likes to live in the village, with other farmers and their families."

French Embassy, Press and Information Division

The French people love flowers. This picture is of a large flower market in Nice. Nice is on the French Riviera, a famous resort area on the coast of the Mediterranean Sea.

"During feudal times the farmers of Europe lived in villages for protection against robbers. The lord of the village, who lived with his knights in a fortified castle, defended the village and the villagers against attack. In return for protection, the villagers worked on the lands of the lord. After the French Revolution the land became the property of individual farmers. But the French farmers still live in villages."

We thank our host and drive away. We take a last look at the village with its great church, white houses, barnyards, and animals. This is the French farmer's way of life.

Other ways of living

French manufacturing is centered in northern France, near the Belgian and German borders. The factory towns, of which Lille is the most important, are built over coal fields. Northeastern France also contains some of the largest iron-ore deposits in western Europe. Iron ore is exported to Belgium and to West Germany. The French do not have enough coal for their own use, so they import coal from these two countries. Bauxite is mined in the southeast.

Le Havre and Cherbourg are the chief French seaports on the English Channel. On the southwest, Bordeaux is the leading seaport. Bordeaux lies many miles up the river from the open ocean. Marseille is the largest seaport on the Mediterranean Sea. In Lyon, on the Rhone River, fine French silks are manufactured.

The French Alps is a favorite region for tourists. They all want to see Mont Blanc, the highest mountain in the Alps.

Do you know—

1. What are the Atlantic lands? Where is each located?
2. How did Great Britain become a great world power?
3. Why is the Ruhr Valley important?
4. What is the capital of each Atlantic nation?

4. LIVING IN CENTRAL EUROPE

The countries of central Europe stretch from the Baltic Sea almost to the Mediterranean Sea. They are Poland, Czechoslovakia, Austria, Hungary, Yugoslavia, Rumania, and Bulgaria. They lie between the free lands of western Europe and the Soviet Union. Find them on the map on page 122. Some of these countries have been occupied by Soviet armies since World War II and brought under Communist control.

CENTRAL EUROPE IN THE PAST

The story of the countries of central Europe is a confused and troubled one. Let us review it briefly.

In the days of empires

Most of central Europe was once a part of the Holy Roman Empire, an empire which lasted for several hundred years. After it broke up, some of the countries became a part of the empire of Austria-Hungary. Vienna, a city on the Danube, was the capital of Austria-Hungary. Other countries of the Holy Roman Empire came under the power of the Turks, who ruled from Constantinople (now called Istanbul). Find this city on the map on page 122.

In early modern times several countries became independent. One of these was Switzerland. Another was Poland, with its capital at Cracow. But Poland fell a victim to its three strong neighbors, Austria, Russia, and Prussia. From time to time each of these nations took slices of Polish territory. Poland as a nation disappeared from the map just before the year 1800.

World War I

Austria-Hungary was a partner of Germany in World War I. Along with Germany this empire, too, was defeated. Great

On a hill overlooking the broad Danube River stands the royal palace at Budapest. It is in Buda on the west side of the river. Buda is the older and more beautiful part of the city of Budapest.

Three Lions

Britain, France, Japan, and the United States were the leading nations who defeated Germany and Austria-Hungary.

In the peace conference that followed this war the Allies set up a plan of *self-determination* for nations. Self-determination meant that each group of people who had the same ways of living should be allowed to form its own nation. Under this plan Poland appeared again as an independent country. Czechoslovakia, Austria, Hungary, and Yugoslavia also emerged as nations. Bulgaria, once a part of the Turkish empire, had become independent some years earlier. Now the central European countries had again gained their freedom.

World War II

But these nations were not to keep their independence for long. Germany's armies under Hitler took over Austria and Czechoslovakia. When Germany attacked Poland, Britain and France came to the rescue and declared war on Germany. This was the beginning of World War II. It lasted from 1939 to 1945. In the end Germany was again defeated.

During the last days of World War II, as we have learned, Soviet Russia's armies marched into Germany from the east. They also occupied several countries of central Europe. In these countries native Communists set up governments which the Soviet Union could control. Six countries became satellite nations. Yugoslavia, though a Communist country, is not under the control of Soviet Russia.

During the war the armies of the United States, Great Britain, France, and Soviet Russia occupied Austria. In 1955 a peace treaty was signed with Austria. Austria became an independent, neutral country.

AUSTRIA, A FREE LAND

Austria is that part of the former empire of Austria-Hungary where German is spoken. Today Austria is a republic of the size of Maine with a population of about 7,000,000.

Making a living

Like Switzerland, Austria has no seacoast, but the Danube River is a highway for transporting people and products. Like Switzerland, Austria also has a lowland region and a large area in the south and west that is mountainous. The lowlands and lower mountain lands are used for dairying. The Austrian Alps attract many tourists.

Austria has some important industries and mines some iron ore. Coal is imported for use in factories, and water power in the Alps furnishes electricity. It has a small oil field. People work in the forests, too. Austria sells forest products to near-by lands.

The city of Vienna

Vienna, which is at the eastern end of the Alps Mountains, is located at the crossroads of central Europe. Study the map, on page 122, to see how the routes from north to south and from east to west avoid the mountains. In the past Vienna has often been attacked by enemy armies. Control of Vienna meant control of a wide area in the Danube Valley.

The position of the city also made it a natural government center. It was the capital of the Holy Roman Empire and of the empire of Austria-Hungary later. It is the capital of Austria today.

Vienna is much like Paris in many ways, for it has wide streets, many parks, great palaces, and art museums. In the city's factories machinery, pottery, leather goods, and musical instruments are made.

SCENES IN CENTRAL EUROPE

In the mountainous village in Yugoslavia shown below, the people meet in an open-air market place to buy and sell products.

Paul Hufner from Shostal

Thatch from Shostal

In all Balkan lands housewives often buy food directly from farmers who bring their produce to outdoor markets like the one above. Notice the women wearing Slavic costumes.

Prague, capital of Czechoslovakia, lies on both sides of the Moldau River. Bridges like the one below join the two parts of the city. The Czechs call their capital city Praha.

Eastfoto

LIVING IN POLAND

Poland occupies part of the plain to the south of the Baltic Sea and extends southward into the Carpathian Mountains (see the map, page 122). Poland is the size of New Mexico. It has more people than New York and Pennsylvania put together. Warsaw, a city of 1,136,000 inhabitants on the Vistula River, is the capital.

Half of the Polish people are farmers and live in farm villages. Large crops of rye, potatoes, sugar beets, and flax are grown. Rye bread is the bread of the people. The Polish farmers, and their farm neighbors in Russia, grow flax, which is used to make linen cloth.

Poland has an important coal field. It also mines zinc in the region west of the city of Cracow. The Polish coal field supplies coal for iron and steel mills, for manufacturing machinery, and for other industries. The industries of this satellite nation are under the supervision of the government.

LIVING IN CZECHOSLOVAKIA

Czechoslovakia is a long, narrow country without a seacoast (see map, page 122). Its area is about the size of Mississippi. Its population equals that of Texas and Virginia. Czechoslovakia is the most highly industrialized of all Communist nations.

Bohemia, the western region of Czechoslovakia, is a land of both factories and farms. Many minerals come from the mountains which surround Bohemia. Coal, iron ore, and uranium are found there. Among its industries are iron-and-steel mills, glass factories, and shoe factories. Prague, the capital of Czechoslovakia, is near the center of this region. It has nearly 1,000,000 people.

The eastern part of Czechoslovakia, called Slovakia, lies in the forested Carpathian Mountains. This is a farm and forest region.

THE DANUBE VALLEY LANDS

Hungary, Rumania, Yugoslavia, and Bulgaria are Danube Valley lands. The Danube River either flows through them or forms a part of their border. The Danube Valley lands have hot summers and cold winters because they are so far from the Atlantic Ocean. The people of these lands have farming as their main occupation. They grow food for their own use and some to export.

Living in Hungary

Hungary is the size of Indiana, but it has more than twice as many people. The flat and treeless plain on which Hungary lies is one of the richest farming areas in western Europe. Large crops of wheat, potatoes, corn, and thousands of beef cattle, hogs, and sheep are raised. Hungary is sometimes compared to the corn belt of the United States because it has the same climate and crops.

Budapest, the capital of Hungary, has 1,800,000 people. Its factories use farm products as their raw materials. Flour milling, sugar refining, and meat packing are the main industries. There is a small oil field near Budapest. Bauxite also is mined.

The people of Hungary have a strong desire for freedom. But Hungary is a satellite nation, and the Russian armies have kept it under control. During an uprising in the fall of 1956, thousands of Hungarians fled the country. To escape from the tyranny of Russian rule they left their homeland to begin a new life in lands of the free world.

Living in Rumania

Rumania is nearly circular in shape (see the map, page 122). It is more than twice as large as New York, and it has about the same number of people. Like its neighbors Rumania has a Communist government.

Part of Rumania lies on the same plain as Hungary. However, mountains separate this plain from a plain in southern and eastern Rumania. The two plains are important farm lands. The farmers grow more corn than wheat. Corn is a staple food of the people of Rumania. The mountains contribute forest products which provide a living for lumbermen. On mountain pastures many sheep graze.

Bucharest, the capital of Rumania, is a city, of 1,227,000 inhabitants. In its factories the people work mainly at processing farm products. Wheat, flour, meat, and corn are exported from Rumania. These products are shipped from seaports on the Black Sea near the mouth of the Danube.

Rumania and its neighbor to the east, the Soviet Union, contain the only important oil fields in Europe. The principal field in Rumania is north of Bucharest. Oil is shipped upstream on the Danube in barges. It is also piped to seaports on the Black Sea and exported in oil tankers.

Living in Yugoslavia

Yugoslavia extends from the Danube plains through rough mountains to the shore of the Adriatic Sea. Yugoslavia is a little larger than Rumania in area, and it has about the same number of people. Belgrade, the capital of Yugoslavia, on the Danube, is only half the size of Bucharest.

Farming is the principal occupation in Yugoslavia. On the plain many food crops are grown. In the mountains the farmers raise sheep. The beautiful, mountainous coast along the Adriatic is noted for its fine scenery. Fishing villages lie along the shore. Railroads connect the small seaports with Belgrade. Several small bauxite fields make aluminum the leading mineral product.

Living in Bulgaria

Bulgaria is a Danube Valley land in that the Danube forms part of the northern border. Hills reach down to the river. South of these hills there are two ranges of mountains, between which there is a broad valley. In some ways, however, Bulgaria resembles the lands along the Mediterranean.

Bulgaria is the size of Ohio. Its population is about the same as that of Michigan. In Bulgaria most of the people make their living directly from the land. The farms of Bulgaria are small, and the countryside is crowded with people. Sofia, the capital, is a city of 725,000 persons. The city has factories which manufacture machinery, textiles, and food products.

Bulgarian farmers raise grains, tobacco, and fruit. On hills and mountains sheep and goats graze. The tobacco is mixed with other tobaccos to provide a mild flavor in cigarettes. Wool from sheep and mohair from goats are exported. Mohair is used in the making of upholstery and clothing.

Parts of the central valley are one great field of roses. When the roses are in bloom, workers pick the rose petals very early in the morning, while the dew is still on them. From the rose petals, a fragrant oil is extracted. This oil, called attar of roses, is used in the making of perfumes. It is exported to many countries.

Do you know—

1. What are the nations of central Europe? Where is each located?
2. Which nations have no seacoasts?
3. What is the capital of each nation?
4. How do the people of each nation make a living?
5. What are the natural resources of Poland? Hungary? Rumania?

Barclay from FPG

Madrid, the capital of Spain, has many old Moorish landmarks. But it is also a modern city. Its citizens are proud of the fine buildings and plazas with landscaped areas, like the one shown above.

5. LIVING IN MEDITERRANEAN EUROPE

To the south the lands of western Europe border the Mediterranean Sea or, as in the case of Portugal, lie very near it. The five Mediterranean lands are Portugal, Spain, Italy, Albania, and Greece. Turkey also borders the Mediterranean Sea, but only a small part is in Europe (see map, page 122).

Three peninsulas extend from the continent of Europe into the Mediterranean Sea. These are the Iberian Peninsula, the Italian Peninsula, and the Balkan Peninsula.

PORTUGAL AND SPAIN

Portugal and Spain share the Iberian Peninsula. Portugal faces the Atlantic Ocean. Spain has an Atlantic shore line also, but it lies mainly on the Mediterranean Sea.

History of these lands

This peninsula was once a part of the Roman empire. As the power of Rome weakened, groups of Germanic peoples, called Goths, moved down from the north and settled there. Then early in the 700's the Moors crossed the Mediterranean Sea from Africa and invaded the Iberian Peninsula. The Moors were followers of Mohammed. They settled down and controlled the peninsula for hundreds of years. The Christians united to drive out the Moors. Little by little their armies defeated the Moors. Finally, in 1492, the Moors were all driven out of Spain.

In the great exploring days which followed the discovery of America, Portugal and Spain became very important nations. The Portuguese found their way around Africa to Asia. They founded colonies in Africa, in Asia, and in South America. The Spanish colonies included much of North and South America and the Philippine Islands. Both countries grew rich from trade. Both held most of their colonies until the early 1800's, when they lost them in revolution and war. Today they are not the great world powers they once were.

Living in Portugal

Portugal is just a little larger than Maine, but it supports ten times as many people. Many Portuguese are farmers who grow grains and fruits. Very large vineyards supply grapes for Portugal's famous wines, one of the country's chief exports. Most of the fruit from the extensive groves of olive trees is used to make olive oil. The best olive oil is used in cooking and in salads. Lower grades of olive oil are used in the making of soap.

Cork-oak trees grow well on the Iberian Peninsula, but nowhere else in Europe. The cork oak is a giant tree which has a very thick bark. Once in every fifteen to twenty years, the bark is peeled off. From it we get a light, woody material called cork. Cork ranks first among Portugal's export products.

Though a small country, Portugal has a large fishing fleet. Many of its fishermen cross the Atlantic to fish on the Grand Bank of Newfoundland. Others fish for sardines in near-by waters.

Lisbon, the capital of Portugal, is about the size of St. Louis. It has one of the finest harbors in Europe. Its factories make goods for Portuguese markets. Like Switzerland, Portugal remained neutral in the two world wars of the twentieth century.

Living in Spain

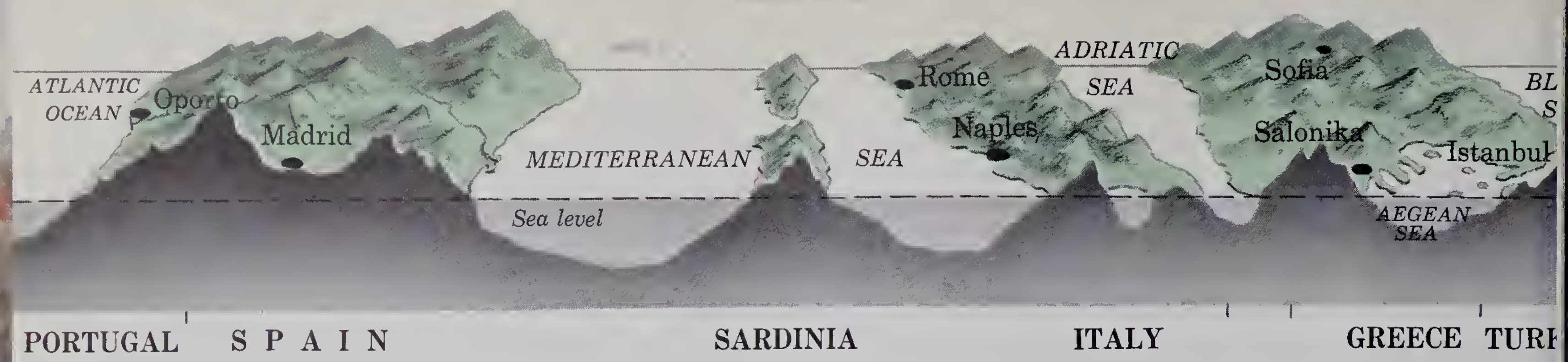
Spain is a mountainous land, but it has a few plains along the eastern and southern coasts. The central part of the country is a great plateau. Madrid, the capital, is on the plateau. Spain is about three fourths as large as Texas, but it has more than three times as many people.

Less than half of the land of Spain is farmed, but farming is the chief way of making a living. Much wheat is raised on the plateau. Vineyards and olive groves are important in the south and southeast. Spain leads the world in olive production. Oranges, grown on the east coast, are exported. Potatoes are also an important crop.

On the dry land of the plateau are cattle ranches, the only real ranches in Europe. On some of the ranches bulls are raised for the bull ring. Bullfighting is Spain's national sport. Every town has an outdoor theater where the bullfighters, called *matadors,* engage in contests with the bulls. Each matador hopes to be skillful enough to appear in the great bull ring at Madrid.

Many valuable minerals have been discovered in the mountains of Spain. Almost one third of the world's supply of mercury is mined in Spain. Iron ore is also mined extensively in the north. Much of the iron ore is exported to Great Britain from the port of Bilbao. Other important minerals found in Spain are coal, copper, lead, manganese, and silver.

Madrid and Barcelona are Spain's largest cities. Madrid has fine public buildings and palaces, many of which date from the days of the Moors. Barcelona, on the Mediterranean, is an important manufacturing city and seaport. It is noted for its textiles, metal products, paper, and articles made of glass and leather.



LIVING IN ITALY

The Republic of Italy occupies the Italian Peninsula and the two large Mediterranean islands of Sicily and Sardinia. Between Sicily and the coast of Africa the Mediterranean is only one hundred miles wide.

Italy is about the size of Arizona, but it has about 50,000,000 people. Italy does not have the natural resources to support its many people comfortably. We shall see how this situation has led to many problems.

Italy in the past

Rome, the capital of Italy, was the center of the strong Roman empire, which flourished many years before and after the time of Christ. As we know, Germanic peoples from northern Europe crossed the Alps, spread out over the peninsula, and captured Rome. The great empire broke up.

When Charlemagne built his empire, he included in it the northern half of the peninsula. Later, this part of the peninsula became a part of the Holy Roman Empire.

In the thirteenth century (the years between 1201–1300) a number of city-states became great trading centers in western Europe. The most important city-states in Italy were Venice, Florence, and Genoa. Italy became a center of learning and art during this period. But it did not become a united nation until modern times. In 1871 Italy became a kingdom with approximately its present area.

Just after the end of World War I, Benito Mussolini came to power in Italy. He built up Italy's armies and ruled the country as a dictator. In 1940 Italy entered World War II on the side of Germany. Italy was defeated. After the war Italy became a republic with a constitution and free elections.

Three natural regions

Italy has three natural regions. One region is the Alps Mountains in the north. A second region is the flat plain of the Po River valley. This is the most prosperous part of Italy. The third region is the mountainous peninsula and the mountainous islands. There are only a few narrow plains along the coast in this region. The peninsula and the islands have a Mediterranean climate. The Alps and the Po Valley have a climate more like that of the Atlantic lands.

The mountain streams of the Alps furnish water to the thirsty lands of the peninsula. Waterfalls in the Alps also produce electricity, which is sent by wire to the Po Plain.

The Po Valley

The Po Valley is a plain. Its fertile soil and the rain it receives in the summer make this region the best farming land in Italy. Some of the wheat grown there is used for bread, but much of it is made into macaroni and spaghetti, which are favorite foods of the Italians. Dairy cows in this region provide milk. Some of the milk is made into cheese. The Italians eat much cheese. The Po Valley farmers also grow rice. If it were not for the productive Po Valley, Italy would fall far short in its food supply.

Many farmers of this region raise silkworms. The raw silk is woven into shining silk cloth in the textile factories of the region. Italian silk is of very fine quality.

The cities of the Po Plain do most of Italy's manufacturing. The three chief factory cities are Milan, Turin, and Genoa. Genoa is a seaport surrounded by the Apennine Mountains. However, a low pass in the mountains gives Genoa an easy route into the Po Plain.

In these cities many factories process foods. Others make fine silks and leather goods. The factories of Milan and Turin make machines, engines, electrical goods, chemicals, and automobiles. Turin has iron-and-steel plants. Some of the power for the factories is furnished by electricity generated from waterfalls in the Alps. Some is furnished by coal brought from Germany.

Venice is an ancient city built on islands in a *lagoon,* or shallow lake, that connects with the sea of the peninsula. The old city stands on piles driven into the lagoon. Its streets are canals. People and traffic move on them in boats. Venice has a large tourist business. Travelers like to visit the old city, which looks much as it did when it was a thriving city-state. They like to ride in gondolas on the canals and to view the beautiful old churches and palaces.

The Italian Peninsula

Most of Italy has a Mediterranean climate. To the south the rainfall becomes less and less. South of Naples summers are very dry.

The Apennine Mountains extend through the peninsula. Melting snows from their summits supply water to the streams during the springtime. During the dry and sunny summers water is scarce in the southern part of the peninsula. The Apennines are not as high as the Alps and do not receive as heavy snows to help store water. On the narrow plains and valleys of the Apennines are raised such drought-resistant products as olive, almond, and chestnut trees and grapes.

Much of the surface of Italy is rock-covered. Fine marble and other building stones are quarried in the Apennines. The Italians use stone in building their homes and public buildings because it is close at hand. Italy has many skillful stone workers.

Both men and women help to harvest the grain on this Italian farm. In some parts of Italy farmers use modern farm machinery.

Hilty from Monkmeyer

Today the city of Rome has many modern as well as ancient buildings. The new railroad station at the left is a fine example of modern architectural style.

Charles May from Shostal

In the hills and mountains many sheep and goats graze. These pastures are too thin and the grass too short to support cows.

Italy has thousands of fishermen. Their catch of fish would not seem large in England or in Norway. But the Italians use all the fish they catch.

Rome, the capital, is a city nearly as large as Philadelphia. It is built on hills that rise above the Tiber River. Rome is a very old city, in which the ruins of many ancient buildings and statues still stand. Fountains built by long-dead emperors still play. Old churches and Vatican City, the home of the Pope, remind the traveler that Rome was a center of Christianity in the past and remains so in the present. But Rome is also a modern city with many new buildings.

The people of Rome do little large-scale manufacturing. Many of them are occupied in church work, in business, and in serving the many tourists who visit the city.

Naples is a city of more than 1,000,000 people. It is a large seaport on the Bay of Naples, one of the most beautiful bays in the world. Near Naples is Mount Vesuvius, a volcano which in times past has erupted and caused great damage. Naples has many factories, some large and some small.

LIVING IN ALBANIA

Across a narrow part of the Adriatic Sea from Italy, on the Balkan Peninsula, is Albania. It is a small and mountainous Mediterranean land. Albania, which is about as large as Maryland, has a population of about 1,500,000. The people earn a scanty living chiefly by farming on small farms in the hills.

Albania's capital city, Tirana, has about 60,000 people. Many of the people of Albania are Mohammedans. Christians number one in five. In World War II, Albania came under the control of the Communists. It is still a Communist nation.

LIVING IN GREECE

In the southwestern part of the Balkan Peninsula is the kingdom of Greece. Greece is the size of Alabama. Its population is somewhat smaller than that of Texas.

Greece has had a long history. Athens, its capital city, was an important city-state 700 years before the birth of Christ. The ruins of beautiful marble buildings in Athens and in other places remind us of the glory of ancient Greece. Greece was the home of great sculptors, fine poets, and wise teachers. It was also in Greece that democracy as a form of self-government had its beginnings.

Greece has many mountains and hilly and mountainous peninsulas (see the map, page 122). There are also hundreds of islands in the Aegean Sea which make up the Greek *archipelago*. An archipelago is a group of many islands lying close together.

Only one tenth of the land of Greece can be cultivated. The rest is steep and rocky pasture, on which sheep and goats graze. Greek farmers raise olive trees, have vineyards, and grow grains. In the region called Macedonia much tobacco is produced.

Greece is not as important a nation as it once was. Most of its people earn their living directly from the soil and the sea. But ships owned by Greeks carry many products all over the world for other countries.

Do you know—

1. What are the five Mediterranean lands? Where is each located?
2. What is the capital of each nation?
3. How do the people in each country make a living?
4. What are the chief products of the Mediterranean lands?

The city shown below is Athens, Greece. Rising high over the city is the Acropolis. The white building with columns is the Parthenon, one of the most famous buildings of the ancient world.

Truman Moore from Shostal

WORLD TRADE OF WESTERN EUROPE

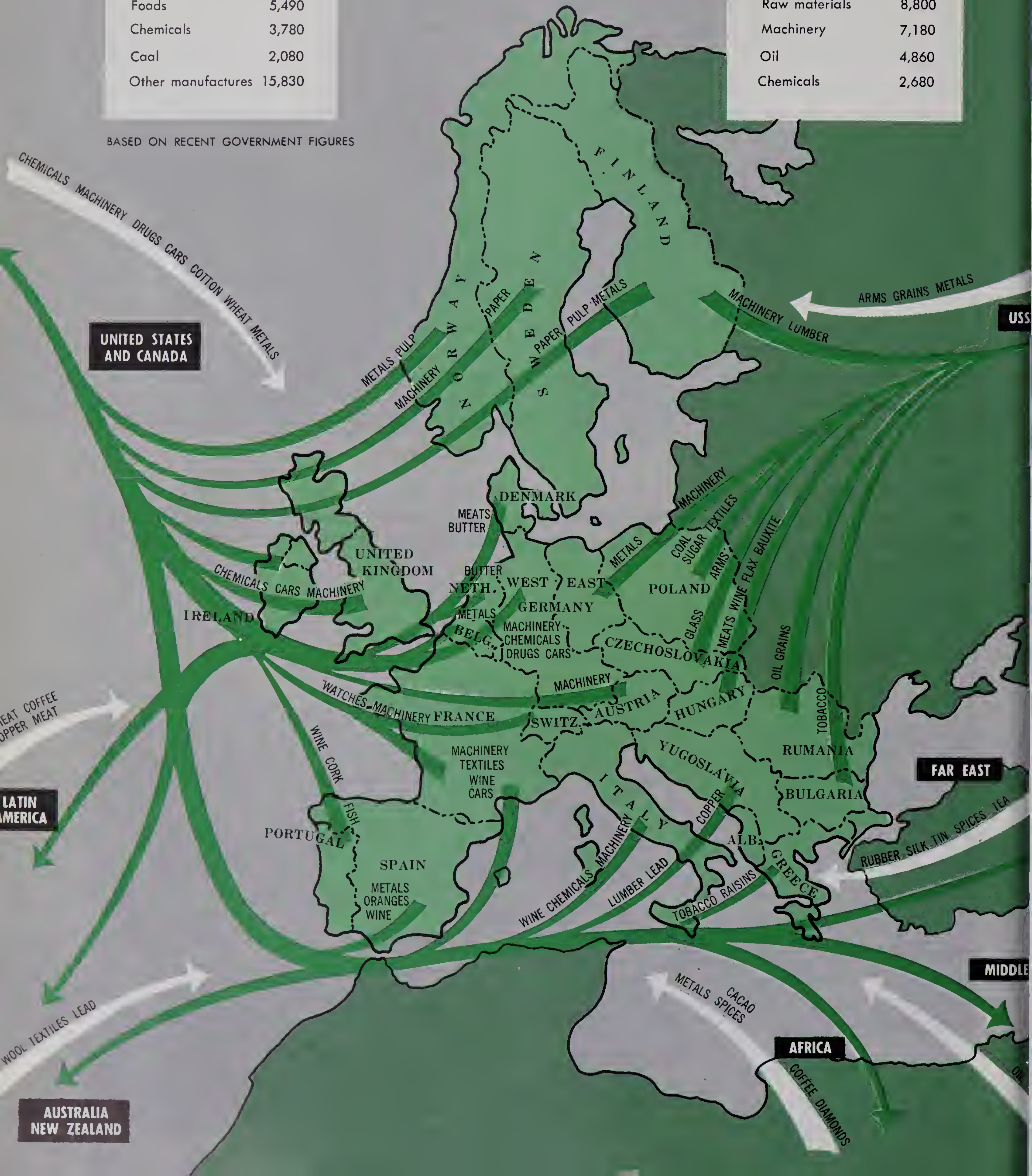
LEADING EXPORTS OF WESTERN EUROPE
MILLIONS OF DOLLARS

Machinery	13,280
Foods	5,490
Chemicals	3,780
Coal	2,080
Other manufactures	15,830

LEADING IMPORTS OF WESTERN EUROPE
MILLIONS OF DOLLARS

Foods	10,280
Raw materials	8,800
Machinery	7,180
Oil	4,860
Chemicals	2,680

BASED ON RECENT GOVERNMENT FIGURES



6. OUR TIES WITH WESTERN EUROPE

Let us consider what western Europe has given to the world. In western Europe the ways of living, or customs, of what we call the *Western world* developed. The people of western Europe developed these customs and carried them to other parts of the world. The lands into which these customs were introduced also developed a form of Western civilization. Thus the Americas, settled by people from western Europe, became a part of the Western world in their customs as well as in geography. As time went on, great changes came about because of the inventive skill of the people of western Europe. The Industrial Revolution, for example, began in western Europe. Today the way of living includes large-scale manufacturing and industry.

Ideas of freedom

Western Europe has also been a seedbed of freedom. The democracies of the world began in this area. Many of them did not gain their freedom easily. For some countries it took a long time. The free peoples of the world can thank western Europe for its part as the seedbed of freedom. Ideas of freedom have traveled around the world through the influence of western Europe.

We in the United States take pride in our jury system, in our courts, and in other freedoms inherited from Athens, from Rome, and from Great Britain. Today the United States has become the guardian of western civilization and its free people and free nations all over the world.

Cultural ties

From our study of western Europe we have seen that the United States has many cultural ties with western Europe. We share a common language with the British people. We trace our history back to the British Isles and the European continent across the Atlantic. We enjoy the music and art of the Europeans. We read European books. We belong to the same kinds of churches.

Eight out of every ten United States citizens are descended from settlers who came from western Europe. The first settlements in what is now the United States were made by people who came mainly from the British Isles. But there were Dutch in New York, Germans in Pennsylvania, French Huguenots in Connecticut and South Carolina, and Swedes in Delaware and New Jersey.

Between 1820 and 1950 about 40,000,000 immigrants came to the United States. Before 1890 nearly all of them came from the Atlantic lands and northern Europe. After 1890 many came from central Europe and from the Mediterranean lands. Every country of western Europe has sent us citizens.

Ties of trade

We have ties with western Europe in business, in commerce, and in manufacturing. The busiest sea route in the world is the one between the east coast of North America and western Europe. There are important products to exchange. Now airplanes fly this route, too. One of the exchanges is in passenger travel, for thousands of people from the United States visit western Europe each year. Today the tourist trade is a big business for western Europe.

Treaties and agreements

Western Europe and the United States work together in many ways. For example,

This building in Geneva, Switzerland, was once used by the League of Nations. Today it is the European headquarters of the United Nations. For many years Geneva has been a meeting place for international conferences.

FPG

after World War II, when many nations of western Europe found themselves weakened by war, the United States adopted a plan to help them recover from the war. Some of the aid was in money, some in goods and food. More than 200,000,000 people in Europe received benefits from the plan. This plan is known as the Economic Co-operation Administration. *Administration* means management.

During World War II, as we know, Soviet Russia seized control of a number of countries in central Europe. After the war its strength grew until it threatened to extend its power over western Europe.

Led by the United States, a group of nations of the free world decided to join together for purposes of defense. This group of nations is called the North Atlantic Treaty Organization (NATO). Fifteen nations, including the United States and Canada, belong to NATO. The United States has sent money and troops to provide for the defense of our freedoms.

Some European nations have made agreements among themselves for mutual aid. In 1949 several countries formed a council on matters of common interest. To make trade easier, Belgium, the Netherlands, and Luxembourg formed an organization known as Benelux. Do you see where the name Benelux came from? According to agreements made under Benelux, products move across the borders of the three countries without the payment of import or export taxes.

In 1959 three other nations—Italy, West Germany, and France—joined the three Benelux countries in an organization called the European Common Market. Thus each country may buy goods produced in the other five countries without paying taxes on them. It can then sell these imported goods to its own people at lower prices. Greece has recently become an associate member of the Common Market. Other European nations are taking steps to join the group.

The countries of western Europe are working together better today than in the past. And our nation works closely with them.

Do you know—

1. What does the term "Western world" mean?
2. What ties does the United States have with western Europe?
3. Why was NATO formed?

TO HELP YOU LEARN

Words and Terms to Remember

Gaelic
neutral
matador
lagoon
satellite
Western world
merchant marine
archipelago
administration
Industrial Revolution
self-determination

A Matching Game

Number a paper from 1 through 11. After each number write the word or term from the list above which matches the definition.

1. A nation that does not take sides in a dispute or a war
2. The period when machines began to be widely used in factories
3. A nation which follows the lead and takes orders from another
4. The language of ancient Ireland, now used in the Republic of Ireland
5. The trading vessels of a nation
6. A group of islands lying close together
7. The management of a governmental or business organization
8. A system by which a group of people with the same ways of living is allowed to form its own nation
9. A shallow lake, especially one connected with a larger body of water
10. A bullfighter
11. A term that means the ways of living shared by the nations of western Europe and the New World

Finding the Facts

1. What favorable geographic conditions for human living does western Europe have? Name at least five.
2. How do farmers in western Europe combat erosion? How is intensive farming carried on?
3. What important modern fuel does western Europe lack? Where does it get this fuel?
4. Why must western Europe carry on an extensive trade with the rest of the world?
5. Compare Norway and Sweden in location, land, climate, and ways of making a living.
6. Why is Denmark a nation of small farms?
7. What source of energy do three countries of northern Europe have? How is it used?
8. Give three reasons why the British Isles are said to be fortunately located.
9. Describe the changes that the Industrial Revolution brought to Great Britain.
10. Why is Ireland called the Emerald Isle?
11. Compare Belgium and the Netherlands in industry, farm products, and ways of living.
12. How do the people of Switzerland, a mountainous land with little farm land and few minerals, make a living?
13. Why does Paris have no skyscrapers? Why are its factories located in the suburbs?
14. Which of the Atlantic lands are island nations? Which has no seacoast?
15. Explain the importance of iron and coal in the Atlantic lands to trade in the region.
16. What kind of climate do the Danube Valley lands have? Explain why.
17. How do people make a living in Spain? In Portugal?
18. Describe Rome, its location, its history, and its importance as a cultural center today.
19. What is NATO? What is its purpose?
20. What is the Common Market?

Using Maps

1. Look at the map of western Europe on page 122. Study the key in the upper left-hand corner and answer the following questions: About how much of western Europe is hilly and mountainous? How much is plains? What do the ocean currents shown on the map tell about climate?
2. On the map of western Europe locate and name the countries that border on the coast. What countries do not have such coast lines? Do these countries have rivers to serve them? Trace on the map the natural waterways from the interior of Europe to the coasts. How do the canals shown on the map on page 124 serve the region?
3. Using the map of western Europe, carry out the following exercises:
   (a) What is the latitude of Oslo, Norway? Of Copenhagen, Denmark? Of Milan, Italy?
   (b) What is the longitude of London, England? Of Hamburg, Germany? Of the west coast of Ireland?
   (c) Give the approximate latitude and longitude of Marseille, France; of Madrid, Spain; of Athens, Greece.
4. Compare Europe in 1871 with Europe after World War I on the maps on page 152. What changes in boundaries and nations do you find? What countries are on the map of western Europe today, page 153, that are not shown on the map of Europe before World War I?
5. On the map of western Europe, page 122, find Great Britain. How much of the area of this island is hilly? How much is plains? What important manufacturing cities are located on the English plains? How much of the island of Ireland is plains? How much is hilly?
6. Compare the world trade map of western Europe, on page 172, with the map showing industrial regions of western Europe, on page 125. What are the chief exports of the industrial regions? What products must these regions import?

Making Geography Real

Late in March, 1957, an important meeting took place in the city of Rome, Italy. At that meeting the representatives of six nations of western Europe met to sign a document. The six nations represented were Belgium, the Netherlands, Luxembourg, West Germany, France, and Italy. The document they signed is called the Treaty of Rome. This treaty created a new kind of European community which has come to be known as the European Common Market.

These six nations are seeking to create a common market, where the products of each nation are sold to member nations at lowered prices. These lower prices are made possible by (1) the unrestricted movement of men and goods between their borders; and (2) the gradual reduction of tariff rates between the nations. These nations are now using freight cars in common and have a unified control system for air travel. They are also co-operating in such basic industries as mining coal, making steel, and producing atomic energy.

The Common Market began operating on January 1, 1958. Its headquarters are in Brussels, Belgium. The organization has arranged for the citizens of each member nation to travel freely to other member nations without passports. It has also set up a joint social-security program. In time, it is quite possible that these nations will form a single government, called the United States of Europe, in which their people will have common citizenship.

Using the map on page 122 and the reference charts on pages 514–520, answer these questions.

1. If a United States of Europe is formed as an outgrowth of the Common Market, how would it compare in size and population with the United States of America?
2. What advantages would the members of such a United States of Europe have?
3. Do you think these nations would need a common currency and a common language?
4. How might such a union affect the trade of the United States?

Can You Find the Right Order?

Arrange the events below in the order in which they happened.

1. Charlemagne's empire established
2. The steam engine made workable by James Watt
3. Scandinavian lands visited by Christian missionaries
4. Anglo-Saxon invasion of Britain
5. Germany united as a nation
6. European Common Market formed
7. Norman invasion of Britain
8. Beginning of World War I
9. Beginning of World War II
10. Moors driven out of Spain

Interesting Things to Do

1. Prepare a report on our cultural ties with western Europe. Let one group collect printed materials which illustrate the political freedoms we cherish. Such books as those of Charles Dickens, Hans Christian Andersen, Jakob Grimm, and other European authors will show our cultural ties. Ask your librarian for suggestions about this part of the display. Let another group choose well-known songs and other musical works by European composers and obtain records or copies of sheet music which may be used in class. Let another group find reproductions of paintings (often printed in magazines) to show the work of great European artists.
2. Have a panel discussion on one of these questions: Why does Ireland have fewer factories than England? Why can it be said that much of the Netherlands is the gift of the Rhine? Why may it be said that the Swiss "sell scenery"? Consult the encyclopedia and other reference books to find the information for this discussion.
3. Divide the class into groups, who will visit a number of stores in your community. Let each group interview merchants to learn about the products from Europe they sell.
4. Many people in the United States have friends or relatives who were born in Europe or who have spent time there. Invite some of these persons to visit your class to talk about these countries.

Things to Think About

1. Switzerland was a neutral country in World Wars I and II. It is also the home of certain world organizations. Do you see any connection between Switzerland's neutrality and its being the headquarters of these organizations? Explain your answer.
2. If you were to tour Europe, you would notice that most cars on the highways are small models. What have you learned in your study of western Europe that would help to explain this?

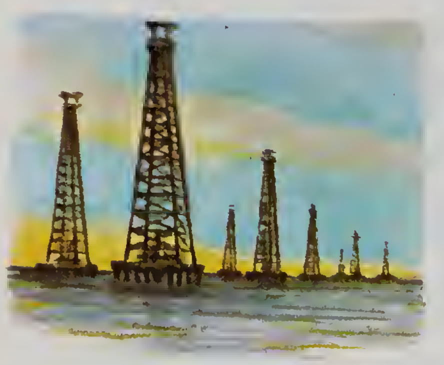
Making a Chart

Make a chart on the countries of western Europe in which you fill in the information called for below. Arrange the countries in the four groups to which they belong. To determine the population density of each country, divide its population by its area. Use the reference tables on pages 514–520 showing population and areas. The chart has been started for you.

Country	Group	Capital	Population density
Denmark	Northern nation	Copenhagen	274 per sq. mi.

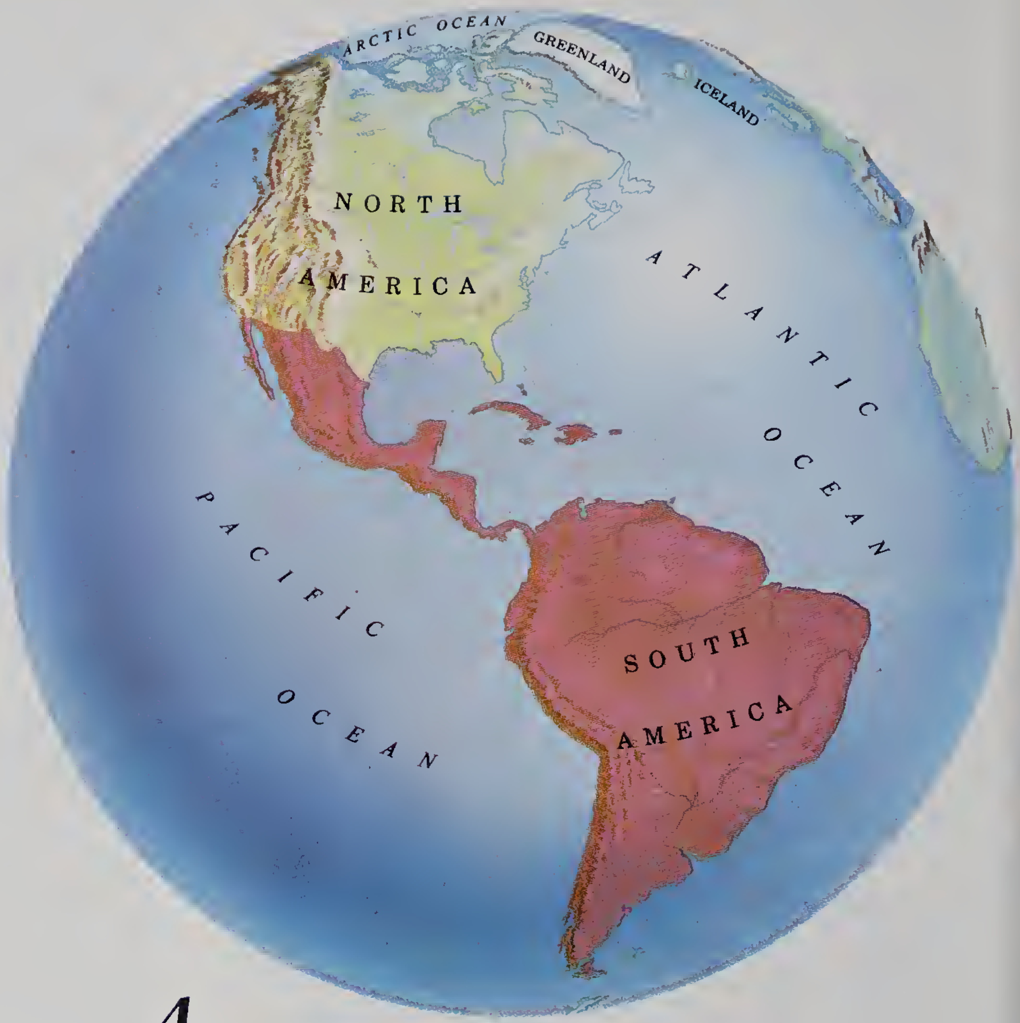
Mining silver
in northern Mexico

Raising bananas
in Central America



Producing oil
in northern Venezuela

Growing coffee in the
Brazilian Highland



4.

The Lands of Latin America

WE HAVE crossed the Rio Grande and are driving along a fine paved road in Mexico. The bright afternoon sunshine on the fields, the distant mountains, and the near-by villages make a pleasant scene. Along the road we see people moving along the highway. Some are walking. We pass automobiles in which more than one family is riding. We see open trucks in which twenty to thirty people are standing. As we pass a freight train, we notice that the tops of the cars are loaded with people. Where are all these persons going?

Here is a young Mexican, carrying a large basket of pottery on his shoulders, plodding along the highway. We stop our car and offer him a ride.

Our passenger does not speak English. So we use the Spanish we learned in school. We ask him where he and the other Mexicans are going.

"We are on our way to a *fiesta,*" the young man tells us. "In Mexico we have many fiestas, or holiday celebrations. Tomorrow is a saint's day, and we are going to town to celebrate."

We ask our new friend to tell us about what will happen at the fiesta.

"Mexico has many fiestas," he replies. "This one is a religious celebration. First, we will go to church. Then we will gather in the plaza to talk, to dance and sing, and to trade in the market place. We have fireworks at night. It is very exciting, señor. Why do you not stop and enjoy the fiesta?"

We decide to stay and look for a place to spend the night. The Mexicans who came to town will stay with friends or sleep under cars and trucks.

In the morning we arise early and join the crowds as they come from the early church service. The women are wearing gaily colored skirts and embroidered white blouses. Their black hair is almost hidden by shawls in flowered patterns. The men wear white shirts, their best trousers, and broad *sombreros.* Sombreros are large hats with wide turned-up brims. The children are dressed like their parents.

After leaving the church, the crowd moves toward the plaza and the market place near by. Booths have been set up here, at which food and souvenirs are sold. When we reach the market place, we see Indian women sitting on the ground beside piles of red peppers, ears of corn, and fruit. We see men selling handmade sombreros, baskets, and blankets. Then we spy our Mexican friend sitting behind his pottery. We stop to chat with him and buy a pretty red bowl.

Some of the people begin to dance and sing. The music and dancing go on all through the evening. When darkness falls, fireworks add to the gaiety of the fiesta.

As we depart the next morning, we understand why Mexicans and other peoples to the south of us enjoy their fiestas so much.

In this unit we will find answers to these questions:

1. What is Latin America? Why should it interest us?
2. What is Middle America like?
3. What are the highland nations of South America like?
4. How do the people of the Plata River countries live?
5. Why is Brazil called a friendly giant?

Standard Oil Co., (N.J.)

The Andes Mountains of South America have many lofty peaks and are very rich in minerals. In the Peruvian Andes copper, lead, and zinc are mined at an altitude of 15,000 feet above sea level.

1. WHAT LATIN AMERICA IS

The region of the New World called Latin America begins at the border between the United States and Mexico and extends to the southern tip of South America. This great region was discovered and settled by the Spanish and the Portuguese. The countries of Latin America share the New World with the United States and Canada.

THE LANDS OF LATIN AMERICA

The lands south of our border are called Latin America because the languages spoken in this area are based on Latin. Long ago Latin was the language of most of western Europe. In most of the countries of Latin America the people speak Spanish. But in Brazil the language is Portuguese, and in some Caribbean islands French is spoken.

The people of Latin America have inherited many of their customs from southern Europe, chiefly from Spain and Portugal. In contrast, the people of the United States and most of Canada have inherited many of their ways of living from England. For this reason, the traveler crossing the Rio Grande notes the differences in dress, in buildings, ownership of land, ways of earning a living, and ways of recreation.

The climate

Nearly all of Latin America lies in the tropical region of the world (see the map, page 182). Only three countries, in the southern part of South America, are not in the tropics. However, high mountains in some parts of Latin America lift the land surface out of tropical lowlands into tropical highlands. Some very high places actually have cool, or cold, mountain conditions. But the tropical climate has caused most of the people of Latin America to live differently from ourselves.

Two large regions

Latin America may be divided into two large regions. One of these is Middle America, which includes Mexico, Central America, and the West Indies Islands. The continent of South America makes up the other great division. South America extends from the Caribbean Sea to Cape Horn and from the Atlantic Ocean to the Pacific. This triangular-shaped continent is about three fourths as large as North America.

Our southern neighbors

The nearest neighbor of the United States on the south is Mexico. The Republic of Mexico shares a boundary with the United States. Central America has six republics, and the West Indies has four.

The independent countries of Central America are Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, and Panama. Find these on the map, page 182. All but one of these countries border both the Caribbean Sea and the Pacific Ocean.

In the Caribbean area are four free nations: Cuba, Haiti, the Dominican Republic, and Jamaica. Cuba includes one large island and some small islands near by. Haiti and the Dominican Republic share the island of Hispaniola.

Trinidad, another large island in the Caribbean area, is making plans for independence from Great Britain. Its chief city is Port of Spain.

West of Haiti is the beautiful tropical island of Jamaica. Columbus discovered the island in 1494. It became a British possession in 1660. Today it has a population of 1,607,000. Its people are English speaking. Ocean breezes and trade winds give the island a fine climate, which attracts many tourists. Jamaica achieved complete independence from Great Britain in 1962. Kingston, a seaport city on the southeast coast, is the capital.

There are ten republics on the continent of South America. Venezuela, Colombia, Ecuador, Peru, and Bolivia are in the high Andes Mountains. Chile is a long, narrow country between the Pacific Ocean and the high ranges of the Andes. It extends to Cape Horn at the southern tip of South America. On the eastern side of southern South America are Argentina, Uruguay, and Paraguay. Argentina and Uruguay are on the Atlantic, but Paraguay has no seacoast. Brazil, one of the giant nations of the world, covers almost half of South America.

Most of the Latin-American countries were once colonies of Spain. But in early times Brazil belonged to Portugal, and Hispaniola was for a time ruled by France.

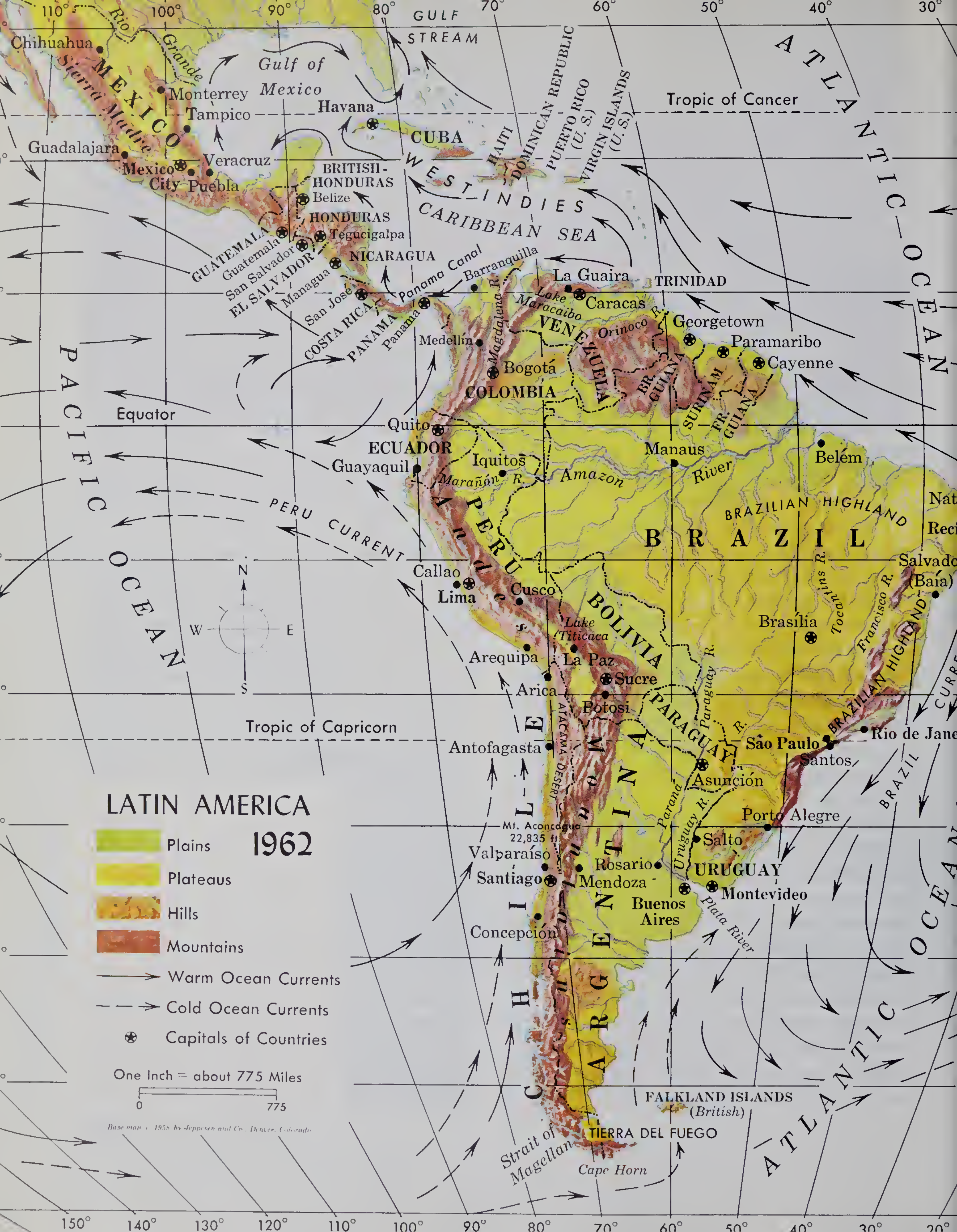
Eighteen of the Latin-American countries became independent during the early 1800's. This was not many years after the United States gained its independence. Cuba gained its freedom soon after the Spanish-American War of 1898. Panama became independent of Colombia in 1903.

European possessions

Three European nations still have colonies in Latin America. One colony is in Central America, three are on the continent of South America, and several are in the West Indies. Find these on the map on page 182.

British Honduras is in Central America and borders Mexico and Guatemala. It has been a British possession since 1638. Belize is the capital of this densely forested land.

British Guiana, Dutch Guiana (also called Surinam), and French Guiana lie on the north coast of South America. Few people live in these heavily forested tropical lands. Valuable woods are obtained from their


LATIN AMERICA
1962
Plains
Plateaus
Hills
Mountains
Warm Ocean Currents
Cold Ocean Currents
Capitals of Countries
One Inch = about 775 Miles
0
775
Base map © 1958 by Jeppesen and Co., Denver, Colorado
110°
100°
90°
80°
70°
60°
50°
40°
30°
150°
140°
130°
120°
20°
Rio Grande
Chihuahua
MEXICO
Sierra Madre
Monterrey
Tampico
Guadalajara
Mexico City
Puebla
Veracruz
Gulf of Mexico
GULF STREAM
Havana
CUBA
WEST INDIES
HAITI
DOMINICAN REPUBLIC
PUERTO RICO (U. S.)
VIRGIN ISLANDS (U. S.)
Tropic of Cancer
ATLANTIC OCEAN
BRITISH HONDURAS
Belize
HONDURAS
Tegucigalpa
GUATEMALA
Guatemala
San Salvador
EL SALVADOR
NICARAGUA
Managua
San José
COSTA RICA
PANAMA
Panama
Panama Canal
CARIBBEAN SEA
Barranquilla
La Guaira
Caracas
TRINIDAD
Lake Maracaibo
Magdalena R.
VENEZUELA
Orinoco R.
Georgetown
Paramaribo
Cayenne
BR. GUIANA
SURINAM
FR. GUIANA
Medellín
Bogotá
COLOMBIA
PACIFIC OCEAN
Equator
Quito
ECUADOR
Guayaquil
Iquitos
Marañón R.
Amazon River
Manaus
Belém
PERU CURRENT
PERU
Andes
BRAZILIAN HIGHLAND
BRAZIL
Nat
Reci
Tocantins R.
Francisco R.
Salvado (Baía)
Callao
Lima
Cusco
BOLIVIA
Lake Titicaca
La Paz
Sucre
Potosí
Brasília
Arequipa
Arica
N
S
E
W
PARAGUAY
Paraguay R.
Tropic of Capricorn
Antofagasta
ATACAMA DESERT
São Paulo
Santos
Rio de Jane
BRAZIL CURRENT
Asunción
Paraná R.
Uruguay R.
Porto Alegre
Mt. Aconcagua 22,835 ft.
Salto
Valparaíso
Santiago
Mendoza
Rosario
URUGUAY
Montevideo
Buenos Aires
Plata River
ARGENTINA
CHILE
Concepción
FALKLAND ISLANDS (British)
TIERRA DEL FUEGO
Strait of Magellan
Cape Horn
ATLANTIC OCEAN

thick forests. British and Dutch Guinea export much bauxite. The United States and Canada are good customers for this bauxite. British Guiana has local self-government and has been promised complete independence.

France and Great Britain have islands in the Caribbean Sea also. The French islands are Martinique and Guadeloupe, both of which send representatives to the French Parliament in Paris. The British lands are Bermuda and the Bahamas in the Atlantic Ocean and a number of large and small islands in the Caribbean Sea. The Netherlands owns several islands off the coast of Venezuela and in the West Indies.

United States lands

The flag of the United States flies over the island of Puerto Rico. Puerto Rico has been a part of the United States since the Spanish-American War. It is a little larger than Delaware and Rhode Island combined, but it has twice as many people. Puerto Rico, with 2,353,000 people, is the most densely populated island in the West Indies.

Puerto Rico is organized as a Commonwealth of the United States. Puerto Ricans elect their own governor and legislature. In 1952 they adopted their own constitution. San Juan is the capital. Puerto Ricans are proud of being citizens of the United States. They are free to move to the mainland if they wish to do so. Both Spanish and English are taught in Puerto Rican schools.

East of Puerto Rico lie the Virgin Islands. In 1917 the United States purchased from Denmark the Danish West Indies. The islands were then renamed the Virgin Islands. This was the name that Columbus, their discoverer, had given them. The Virgin Islands are well located to help the United States defend the Panama Canal.

EARLY PEOPLE OF LATIN AMERICA

Just as in the United States, Latin America was settled by people from many lands. The earliest inhabitants of the area, like the natives of our own country, were Indians.

Soon after Columbus discovered America, other explorers from Europe began coming to the New World. During the 1500's the Spanish ranged through Mexico, Central America, much of South America, and parts of what are now the United States.

Settlers followed explorers in large numbers. There was much intermarrying between Indians and the European settlers. To do the hard work in mines and on farms, Europeans brought in Negro slaves from Africa. Later, more people came to Latin America from many parts of Europe. Today the descendants of these settlers live and work with the descendants of the native Indians.

The Indians of yesterday

Millions of Indians were living in the New World when the first white men came. North of the Gulf of Mexico there were probably no more than 350,000 Indians. Tribes like the Iroquois were constantly on the warpath, as they moved from one hunting ground to another.

Many more Indians lived in what is now Latin America. In Mexico and Central America there were at least three or four million Indians. South America had not less than another four or five millions. Because of their great numbers Indians played a more important part in the southern lands than they did in the United States.

Some of the Indian tribes had developed a high standard of civilization. In Middle America there were the Aztecs of central Mexico and the Mayas of Guatemala and of the Yucatan Peninsula. In northern South

America lived the Chibchas. Farther south the Incas inhabited plateaus in the Andes. Their emperor ruled the tribes in an area 800 miles long.

Other Indian groups were at lower stages of civilization. Some of them were primitive farming tribes. Others were hunters and fishermen. In southern Chile lived a fierce tribe called the Araucanians, who were never conquered by white men.

The Aztecs, Mayas, Chibchas, and Incas lived in large cities. They constructed good roads and fine temples. Ruins of many of their buildings may still be seen in Yucatan, Guatemala, and Peru. These Indians also made good pottery, fine cotton textiles, and ornaments of gold and silver. Some of these articles are displayed in museums today.

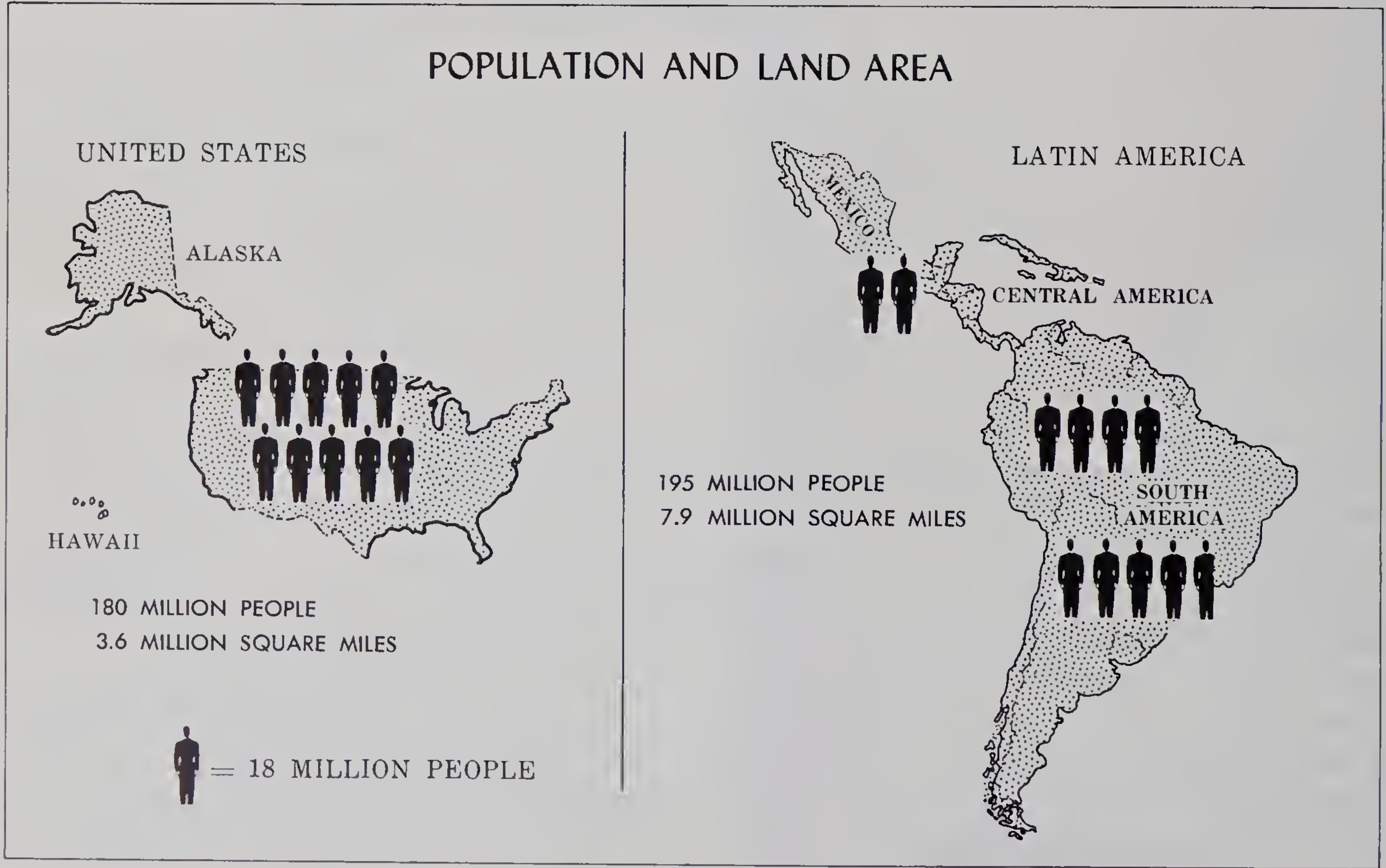
These Indian groups had learned how to make a good living from the land. Their chief food was maize, or corn. They also raised potatoes. Neither potatoes nor corn were known in Europe until the discovery of America.

The Aztecs and the Mayas developed written languages. But scientists have not yet been able to decipher these languages which look something like Egyptian hieroglyphics.

The Spanish in America

With the news of the discovery of America, many Spaniards saw a chance to obtain a fortune. Because they were interested in getting rich quickly, the first Spaniards came to the New World to find gold and silver rather than to make settlements.

How do Latin America and the United States compare in area? Which has more people? Which has the greatest population density? What are some of the reasons for the differences between them?



The island of Hispaniola became the Spanish base of exploration in the New World. The city of Santo Domingo was founded by the Spanish in 1496. It is the oldest city in America. Find it on the map, page 182. Spanish explorers sailed to Santo Domingo and then set out on their expeditions of conquest. These explorers proudly called themselves *conquistadores,* or conquerors. Some of them conquered regions of great wealth. Others spent their money and time roaming over deserts and mountains in a vain search for gold.

One of the most famous conquistadores was Vasco de Balboa. In 1513 Balboa smuggled himself aboard a ship sailing from Hispaniola to the Isthmus of Panama by hiding in a barrel. In Panama he became a leader of the colony on the isthmus. With a band of Spaniards and Indian guides he set out to find the great sea that the Indians had described. The men hacked their way through the tropical jungles of the isthmus and discovered the Pacific Ocean. Panama then became the base from which the Spanish journeyed down the western coast of South America.

The boldest of the conquistadores was Hernando Cortés, who set out to conquer the rich Aztecs of Mexico. Cortés sailed from Cuba in 1519 and landed in Veracruz. With a small army of about 600 Spaniards and 1000 Indian allies, he conquered Montezuma and his Aztec warriors. Ship after ship carried the gold, silver, and jewels of the Aztecs back to Spain.

From Mexico the Spanish entered what is now Guatemala. They soon controlled the regions of the Mayas. They were disappointed in not finding great riches in these lands, for the Mayas were no longer an important or wealthy people.

The most cruel of the conquistadores was Francisco Pizarro. With a small army of Spaniards, he marched into the Inca empire. In 1533 he captured the Inca emperor. He demanded a huge ransom in gold and silver as the price for giving the emperor his freedom. But after receiving the treasure, Pizarro had the emperor killed. Then he set up a member of the emperor's family as a puppet ruler. The Incas had been taught to obey their emperors without question, so the Spanish had no difficulty in ruling them.

Pizarro built a new capital at Lima in 1535. Untold amounts of Inca gold and silver were taken to the Pacific coast and then shipped to Panama. There the gold and silver were taken across the Isthmus of Panama on horseback. The treasure was then put on sailing vessels on the Atlantic side of Panama and shipped to Spain.

The Chibchas were conquered from three directions. Spanish armies came from what is now Venezuela, from the north coast of what is now Colombia, and from the Inca lands. They met in the lands of the Chibchas. About 1540 they founded the city of Bogotá.

In the 1500's the Caribbean Sea was a busy area with Spanish sailing vessels carrying the riches of conquered empires to Spain. The ships left ports in Mexico with the riches of the Aztecs. In Panama the ships were laden with Inca gold and silver and other treasures.

During this time the Caribbean became a favorite hunting ground of pirates. The pirates lay in wait for ships loaded with Spanish treasure sailing from the New World for Spain. For safety the Spanish sent their ships in great *convoys,* or groups of ships. But even these large convoys were often attacked by the pirates.

The Portuguese in America

The Portuguese had a claim to land in the New World because a Portuguese captain landed by accident on the eastern coast of South America. Captain Cabral was on the way to the Far East when he lost his way. Strong winds blew his ship to the eastern shore of what is now Brazil. This was in 1500, just eight years after Columbus's first voyage to America.

It was not until 1532, however, that the first permanent settlement in Brazil was made, near the present city of Santos. In 1640 Bahia, now named Salvador, became the capital of the Portuguese lands. Settlements proceeded slowly. There was little wealth among the Indians in this area to interest adventurers. Not until sugar became an important crop did the Portuguese colonies begin to grow.

THE PEOPLE TODAY

Unlike the early English and Dutch, who came in families to live in what is now the United States, the first Spanish and Portuguese settlers were men. Instead of bringing wives with them, many of them married Indian women. For many years most of the children born in the Spanish colonies had Spanish fathers and Indian mothers.

A mixture of races

The people of Middle America and of western South America are descendants of the Spanish, of the Indians, or are of mixed Spanish and Indian ancestry. In Mexico, Guatemala, and the Andean lands there are many full-blooded Indians. But a large proportion of the people of Mexico, Central America, and South America are of mixed blood.

In the West Indies the population is Spanish, Negro, or a mixture of Spanish and Negro. Large numbers of Negroes were brought to the West Indies to replace the Indians as workers. On some islands the Indians died off. On others they were killed by the conquistadores.

In Argentina and Uruguay the people are mainly of European ancestry. Costa Rica and Cuba also have many white people.

In early times Negroes were brought to Brazil to work on the sugar plantations.

Pan American Airways

These Mexican Indians of today are wearing colorful costumes like those once worn by the ancient Aztecs. The many remains of the great Aztec civilization attract tourists to Mexico.

This modern gaucho from the Argentine wears the costume of the past. See his hat, the serape or shawl with its brightly woven border, and his Spanish guitar. His job is much like that of the cowboys in our country.

D'Arazien from Shostal

Many Brazilians today are descendants of the Portuguese and the Negroes. Southern Brazil has large numbers of people whose ancestors come from Europe.

Languages spoken

Except in Brazil, where Portuguese is spoken, and in Haiti, where French is used, Spanish is the official language in Latin America. There are many different dialects, or variations in the spoken language, but the written language is the same.

WAYS OF LIVING

Many of the customs of Latin America were brought to the New World by the Spanish and Portuguese. The Indians, the Negroes, and people of mixed blood adopted some of these ways of living. Thus we find that many customs are similar.

Churches and homes

Spanish and Portuguese missionaries built missions throughout Latin America and taught Christianity to the Indians. The Catholic religion is today the most important religion in the region. Latin America has many churches. In each town the church usually faces a large plaza, or open square in the center of the city. The plaza is a meeting place where markets and fiestas are held.

Churches, missions, and many homes are built in the old Spanish style in most of the countries. Such houses are built around open courtyards, called *patios,* which are filled with shrubs, flower beds, and small trees. Families spend much time in these open patios, which can be used all year long in the tropical countries, and for much of the year in temperate Argentina and Chile.

Land ownership

Most of the early Spanish settlers came from southern Spain, a land of large estates, where wealth was measured by the ownership of land. In the New World land was plentiful. The Spanish rulers granted large estates to men of the court who wished to come to the New World. Much of Latin America is still a land of large estates, or plantations, held by a rather small number of wealthy landowners. Many thousands of workers on these estates own no land. This unequal distribution of land is the cause of one of Latin America's greatest problems. In many Latin-American countries, some progress has been made in breaking up the big landholdings and distributing the land more equally.

Since the republics gained their independence in the early 1800's, settlers from other European countries have come to Latin America. They have settled there in large numbers—especially in Brazil, Argentina, and Uruguay. But, in time, these later settlers also adopted the customs of their new homelands. Today all are Latin Americans.

Many goods are sold at weekly markets in Mexican towns. What articles can you name?

Mexican Government Railway System

Amusements

People in the Spanish-speaking countries enjoy many of the recreations of Spain. Bullfighting was adopted from Spain. As a form of amusement this cruel sport is losing its popularity. In some countries bullfighting is now prohibited by law. But cockfighting is still a common sport in some countries, especially in the Caribbean area.

Jai-alai, a lively Spanish ball game, is very popular in Mexico and Cuba. It is played with narrow, curved rackets on a large court. In some countries, especially in Mexico, Cuba, and Venezuela, baseball has become a very popular sport.

Fiestas are popular throughout all Latin America. Open-air markets are an old-world way of trading found in all parts of Latin America. People enjoy meeting and talking at the markets and fiestas much as we enjoy fairs in our country.

Latin-American laws

The laws of Latin America are somewhat different from our laws. Our system came from the English, as did our language. The Latin Americans inherited their system of laws from Spain and Portugal, which were based on old Roman law and Church law. These legal systems place less emphasis on individual rights and freedom than do the English and United States laws.

Do you know—

1. Where is Latin America? Why is it so called?
2. What kind of climates does Latin America have?
3. By what two nations was Latin America settled?
4. What nations still have possessions in Latin America?

Brehme from Guillumette

Mexico has two mountain ranges which come together to form one range in southern Mexico. Among the mountains are a number of active volcanoes, like the one shown in this picture.

2. LIVING IN MIDDLE AMERICA

All of Middle America lies in the tropics. Northern Mexico is a dry land. Central America and the West Indies Islands have a rainy climate.

MEXICO, OUR NEXT-DOOR NEIGHBOR

Mexico, our closest southern neighbor, is mainly a highland country. It is a little less than one fifth the size of the United States and has a population more than twice that of New York state. The people of Mexico live principally on a plateau in the central part of the country.

Mexico as a republic

The Republic of Mexico is made up of twenty-nine states and two territories. Mexico City, the capital, is located in its own district just as is our capital of Washington.

Mexico's most famous president was Benito Juárez, an Indian. Juárez was a poor boy who obtained an education through his own efforts. He was president of Mexico at the time when Abraham Lincoln was President of the United States. Juárez was interested in bringing about *reforms,* or improvements, in the government. He helped to write a new constitution for Mexico. This constitution gave the people more rights. One of the reforms included in the constitution was a provision to break up the large estates in order to distribute the land among the people. But Juárez died before he could carry out his ideas.

Four years later General Porfirio Díaz became president and ruled for more than thirty years. Díaz made no effort to carry out the reform laws of the Juárez constitution. But he brought law and order to Mexico, which the country badly needed after the death of Juárez. He also invited businessmen into the country to invest their money. Railroad builders from the United States were encouraged to build railroads. Under

Díaz, Mexico made some progress as a nation. But the Mexicans—particularly the Indians—lost many rights during this period. There was no freedom of the press. It was a crime to oppose Díaz.

The Mexican people finally grew tired of the rule of Díaz. In 1911 a series of revolutions shook the country. Díaz fled from Mexico. Bandit leaders controlled small armies. One army general even invaded a town in the United States. But in time wiser men assumed leadership. A new constitution was drawn up in 1917. This constitution included even more reforms than Juárez had dreamed possible. It defined the rights of workers. It stated that education is a responsibility of the government. Mexico now has freedom of the press and free elections. Today Mexico is a peaceful nation.

Natural regions and climate

A plateau covers most of the interior of northern and central Mexico. The plateau lies between two mountain ranges. You can see from the map, on page 182, that the plateau is wide at the north but becomes narrow toward the south. The mountains meet just south of Mexico City.

A very narrow coastal plain lies between the plateau and the Pacific. A somewhat wider coastal plain lies between the mountains and the Gulf of Mexico. Find these plains on the map, page 182. Veracruz, the chief port of Mexico, is on the flat, hot gulf plain. Farther north around the port of Tampico are valuable oil fields.

Southern Mexico is a mountainous region. Here the people live in river valleys or in basins among the mountains. Some of the basins have been formed by earthquakes.

Mexico has two great peninsulas. On the southeast the peninsula of Yucatan juts out toward Cuba. On the west is the peninsula of Lower California.

In northern Mexico the Sonora Desert covers about one fourth of the country. Towns and farms are found in the dry lands where water can be brought to them for irrigation. There are some mining towns, too. But most Mexicans live south of the dry lands, and the people of the United States live north of them. Thus the desert forms a kind of natural barrier between the two North American countries.

The southern three fourths of Mexico has a rainy climate. Most of the area is in that part of the tropics which has a rainy season and a dry season. In the extreme south, however, all months are rainy.

Farming in Mexico

Most of the people who live in Mexico are farmers. Two thirds of the farming is on the plateau not far from Mexico City. In the dry north crops must be irrigated. In this dry region are many cattle ranches. On the plateau near Mexico City farmers grow most of their crops during the rainy season. In the south, and on higher lands in the mountains, crops can be grown throughout the year. There is no frost, except toward the tops of the mountains. Much of the land of Mexico is hard to farm, for it has steep slopes and is rocky.

Because of the differences in elevation, from tropical lowlands to cool mountain lands, Mexican farmers can raise almost every kind of crop. Bananas and other tropical products are grown on the hot coastal plains. Cotton and other warm-land crops are raised on the plateau near Mexico City. Cotton is also grown under irrigation along the Rio Grande and the Colorado River. Crops of the temperate lands, such as wheat, are grown in the cooler uplands. But no matter what special crops are grown, nearly every Mexican farm grows corn and beans. Mexicans eat corn and beans prepared in a variety of ways.

In the north of Yucatan large crops of henequen are grown. Near the city of Mérida are great *haciendas,* or estates, planted in henequen. The long leaves of henequen contain a fiber, called *sisal.* Sisal is used in making rope and heavy cord. The leaves are cut, one by one, and the long fibers removed. After bleaching and drying, the fibers are packed in bales for shipment. Much of Mexico's sisal is shipped to the United States. Yucatan produces more than half of all the sisal in the world.

In 1917 the Mexican government began to take over the estates of the large landowners and to divide the land among the workers. Under the government plan a family might buy a small piece of land. Or a group of families might join together and obtain a larger plot of land which they farmed on the *ejido* plan. On some ejidos the farmers share all the work and the crops. On others each farmer has his own piece of land to work. Ejido farmers do not own the land. They have it only so long as they farm it. The government helps supply seeds, fertilizer, and farm machinery to the ejidos. It also develops irrigation projects where the land is too dry to farm.

Working in the mines

The mountains of Mexico are rich in minerals. Mexico has so much silver that it leads the world in silver mining. Gold, lead, zinc,

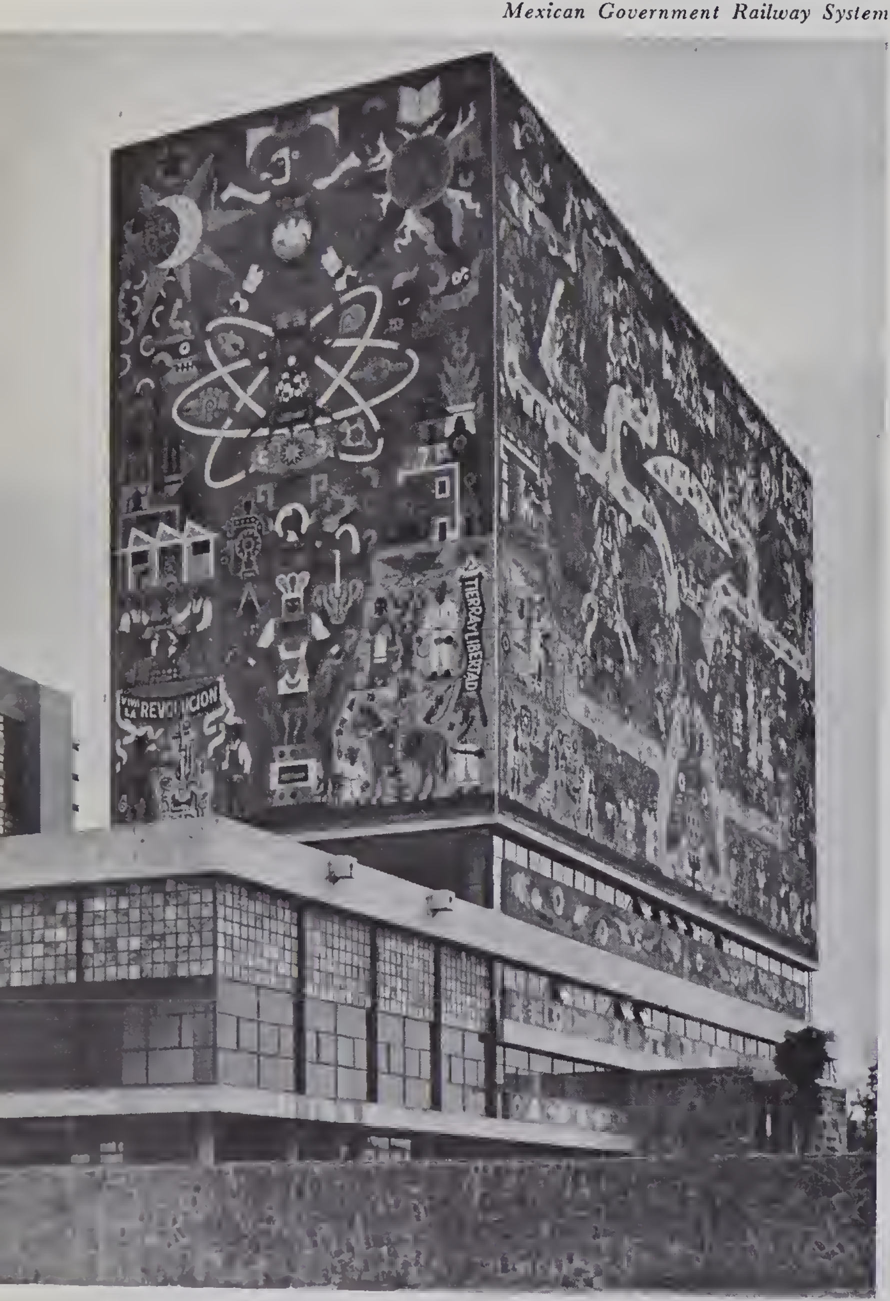
Mexico has too little level land and not enough water to raise the crops it needs. Many Mexican farmers still plow with oxen. In some areas there is increasing use of machinery and irrigation.

Hamilton Wright

and copper are mined also. There are oil fields near Tampico on the plain along the Gulf of Mexico. Unfortunately, Mexico does not have much iron ore or coal. For this reason, and also because it does not have much water power, it has not been able to develop large-scale industries.

National University, in Mexico City, is an old and famous school of higher learning. The beautiful building shown here is the library. Notice how the old Aztec designs are used.

Mexican Government Railway System



Living in the cities

Mexico City, the largest city and the capital, has 2,697,994 people. It is one of the largest cities in North America. The city, which is in a basin on the plateau, is almost surrounded by mountains. The highest mountains rise more than 10,000 feet above the city, and the city itself is 7,400 feet above sea level.

Wide, tree-shaded avenues lead to the Plaza Mayor, or Great Plaza, at the center of Mexico City. A beautiful cathedral, government buildings, former palaces, and many parks adorn the city. The steeples of numerous churches rise above the low buildings of the residential sections. On the edges of the city are new factories. These factories are signs of growing industries.

Mexico City has had many earthquakes. An earthquake in the summer of 1957 destroyed many buildings and statues in the city.

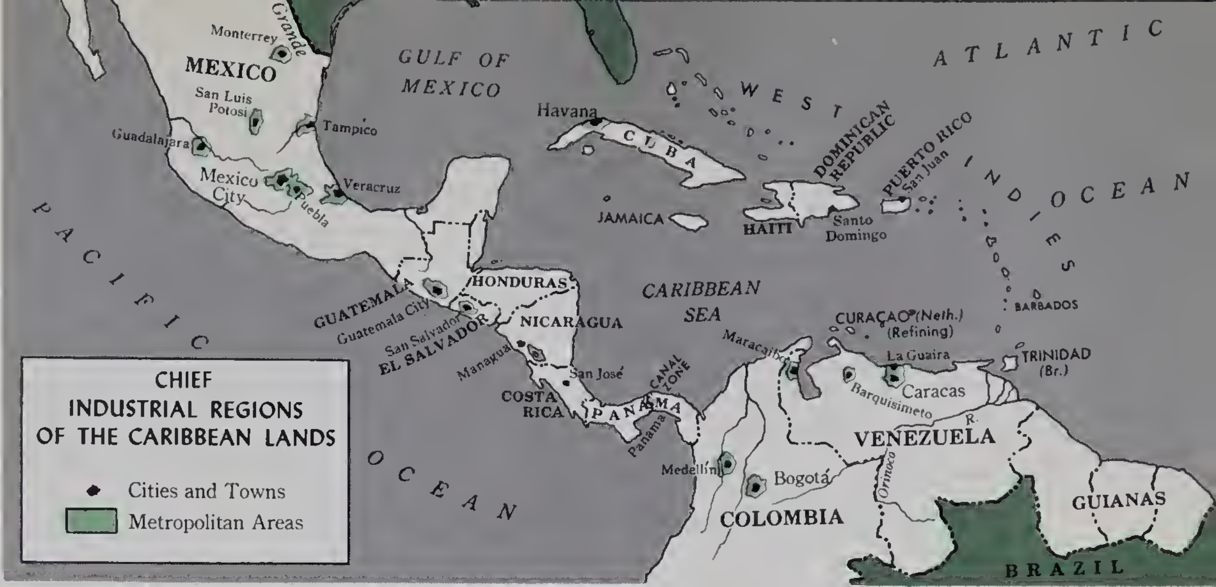
Puebla, one of the oldest cities of Mexico, has a beautiful cathedral. Today the city is a cotton-manufacturing center. Taxco, built near a silver mine, is famous for its silver and jewelry manufacture. Acapulco is a pleasant city on the Pacific Ocean which tourists like to visit in winter.

Monterrey, in northern Mexico, is the center of the small Mexican iron-and-steel industry and of other manufactures. Railroad cars and automobiles are made there. It also has flour and cotton mills. Mexicans like to compare busy Monterrey with industrial cities in the United States.

LIVING IN CENTRAL AMERICA

Central America is a narrow strip of land. At its widest place this strip is 325 miles from one ocean to the other. In some places Central America is only fifty miles wide, but

This map shows the parts of the Caribbean area in which industries have been developed. Can you tell why more industries have not been developed there?



it is 1000 miles long. Five of the six republics of Central America united with Mexico after they became independent of Spain. Then they tried a united government. But they soon split up into separate nations. Find them on the map on page 182.

Natural regions

A mountain range extends through Central America from Mexico to Panama. In a few places, notably in Guatemala and Nicaragua, plateaus lie between spurs of the mountain ranges, and at a high level above the sea. These plateaus are small compared to the plateau of Mexico, but they are important for settlement. The plateau of Guatemala was a center of the Mayan empire.

A plain lies along the Caribbean coast of Central America. This plain, which is low, hot, and rainy, is covered by a dense, tropical forest. A second, and narrower, plain lies along the Pacific coast. The traveler crossing Central America passes through three belts of land—the rainy plain of the east coast, the interior mountains and plateaus, and the narrow Pacific plain.

Products

Most of the people of Central America make their living on farms. Many farmers produce only the food eaten by themselves and their families. They are called *subsistence farmers,* because the food they raise helps them to subsist, or live. Subsistence farmers do not raise enough crops to have any to sell. Corn is their chief farm crop.

Other farmers raise bananas and coffee to sell as money crops. Bananas are grown on plantations on the tropical lowlands. Nearly all the bananas eaten in the United States come from Central America. Companies in the United States own many of the banana plantations. Coffee grows in the highlands.

Some people make their living by cutting trees in the forests of the eastern plain. Mahogany is an especially important tropical wood because of its hardness and fine grain. Most Central American mahogany is shipped to furniture factories in the United States.

Six small republics

Moving southward from Mexico, the traveler comes first to Guatemala. It is about the size of New York. It has the largest population of the Central American nations. Its capital, Guatemala City, is also the largest city in Central America. Ruins of ancient temples remind the visitor that Guatemala was the early home of the Mayas.

The name Guatemala means "land of trees." In the dense jungles of northern Guatemala sapodilla trees are tapped for chicle. From chicle, chewing gum is made. Great forests of dyewood, mahogany, and cedar are valuable natural resources.

To the east lies Honduras. This republic is a little larger than Michigan and has 1,950,000 people. It has silver mines that first attracted Spaniards to the highlands that compose most of Honduras. They built a town near a mountain which the Indians called Tegucigalpa, or "hill of silver." Today Tegucigalpa is the capital of Honduras.

Honduras grows such large amounts of bananas that it is sometimes called the "banana republic." The United States buys a large percentage of these bananas.

Facing the Pacific coast is the tiny republic of El Salvador. El Salvador is about as large as Maryland and it has 2,612,000 people. Its capital, San Salvador, is the size of Mobile, Alabama. El Salvador is rich in gold and silver ores. It also produces coffee, rice, sugar, and indigo.

Nicaragua, the largest of the republics of Central America, is about the size of Florida. It has about 1,500,000 inhabitants, most of whom live in the western, or Pacific, section. Managua, the capital, is the size of Grand Rapids, Michigan.

In the past proposals have been made to dig a canal through Nicaragua and connect the Atlantic and Pacific oceans. Such a canal would use the natural waterways of Lake Nicaragua, which is nearly 100 miles long, and the San Juan River, which flows out of this lake into the Caribbean Sea. The decision to build a canal across Panama disappointed the people of Nicaragua. If a second canal across Central America is ever needed, it will probably be built across Nicaragua.

The republic of Costa Rica is a little smaller than West Virginia, with a population equal to that of Arizona. Its capital, San José, is a little larger than Paterson, New Jersey. Costa Rica, in Spanish, means "rich

Pan American Airways

In Guatemala these Indian women are using hand looms on which they weave rugs and cloth to be made into clothing. Notice the bright clothing they wear.

After sugar cane is cut, it is piled into carts and taken to freight trains which will move the cane to central sugar mills. In most of Central America the carts are pulled by animals.

Rapho-Guillumette

coast." As the name suggests, the land is fertile, and farming is the main activity. Soon after independence was won, the Costa Rican government offered free land to those who would agree to plant coffee trees. The result was that by 1829 coffee had become the chief export crop, and it remains so. Bananas and cacao are also important exports.

Costa Rica has a splendid record of democracy and education. The nation's standard of living is high. All citizens not only have the right to vote but must vote or be fined if they do not.

Panama, which gained its independence in 1903, is the youngest republic in Central America. Its story is intimately tied up with the building of the Panama Canal.

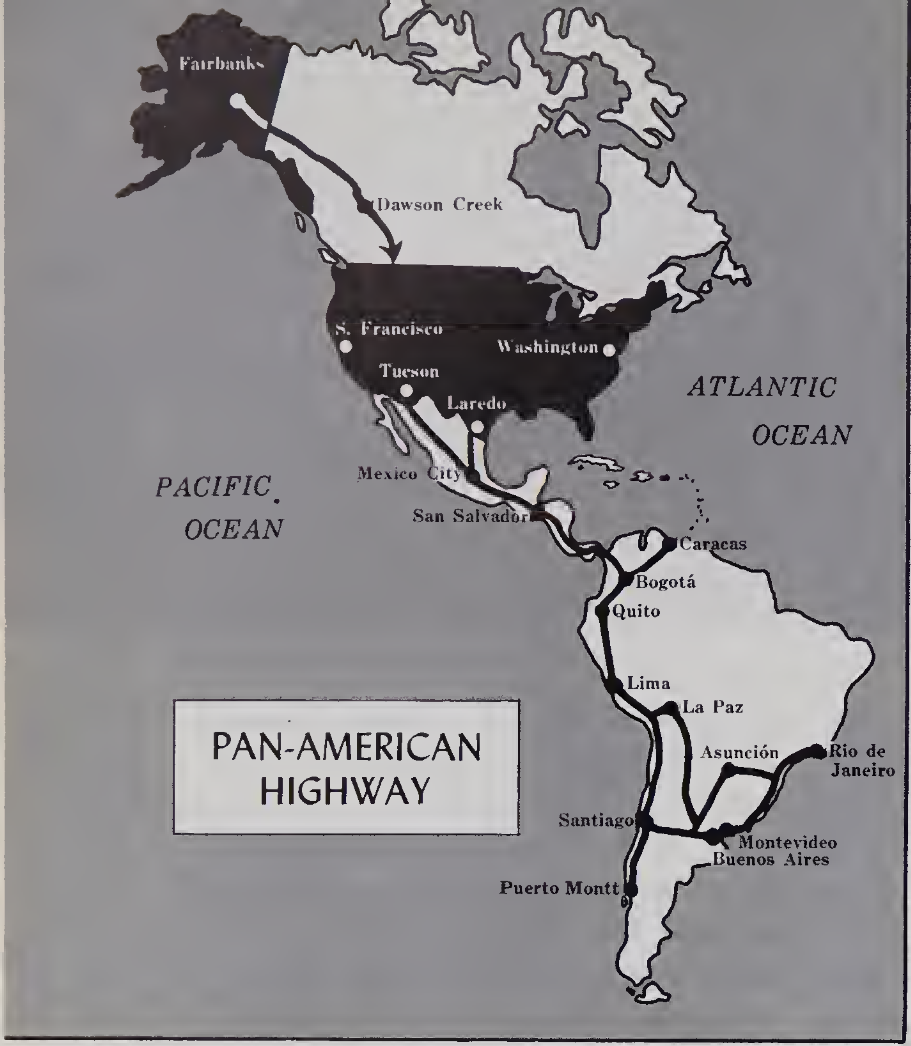
The Panama Canal

The narrow Isthmus of Panama has been important in transportation since the time of the early explorers. In those early days goods were carried across the isthmus on horseback or in wagons. During the 1850's a railroad was built across it. Then a French company tried to build a canal there. But the project failed because great numbers of the workers died of tropical diseases.

After the Spanish-American War, in 1898, the United States saw that a canal would save the time and expense of sending ships around South America. The United States bought the French company's rights. But Colombia, to which Panama belonged, refused the terms offered by the United States. Meanwhile, a canal from coast to coast through Nicaragua had been suggested. To prevent this, the people of Panama revolted and declared their independence from Colombia. The United States supported the new republic and signed a canal treaty with Panama. This treaty gave the United States a lease on a strip of territory ten miles wide across the isthmus. This territory is called the Canal Zone. Panama City, the capital, lies in the original Canal Zone, but has now been returned to Panama. The United States pays Panama rent to use the Canal Zone.

The United States started to build the Panama Canal in 1904. Learning from the French company's failures, the United States began the work by making the Canal Zone a safe place in which to live. Malaria and other tropical diseases were controlled. Clean homes, medical supplies, and hospitals were provided for workers.

ST. PIUS X SCHOOL
12214 - 128 STREET
EDMONTON [illegible]



Much of the Pan-American Highway is now completed. What cities does it pass through? How does this highway serve the Americas?

Then the work of cutting through jungle-covered land, of damming rivers to make lakes for a water supply, and of building locks began. The locks were built to lift ships from sea level to eighty-five feet above sea level and to lower them again to the level of the sea on the other side. Finally, in August, 1914, President Woodrow Wilson pushed a button in Washington, D. C., and an explosion in faraway Panama blew the last earth from the canal. It was then opened to shipping.

The Panama Canal, which unites the waters of the Atlantic and Pacific oceans, is one of the most important waterways of the world. It brings the west coast of South America closer to the east coast of the United States by sea. It permits shiploads of goods to be sent directly from one ocean to the other.

The people of Panama depend greatly on the canal for their living. Some work on the canal. Others serve the needs of the many government workers who live in the Canal Zone. The people of Panama City and Colón sell many products to the passengers and the crews of the ships that use the canal.

The Pan-American Highway

One of the important roads in Latin America is the Pan-American Highway. When completed, this highway will form a system of paved roads reaching from Alaska to Buenos Aires, Argentina. Some parts are now paved, and some parts are surfaced with rock. But an area of 500 miles of the highway is still made up of dirt roads which are marked "Impassable in Wet Weather." Most of these unpaved sections are in Central America. The United States has provided money to some Latin-American countries to help them build or improve the highway.

THE WEST INDIES ISLANDS

As you can see from the map on page 182, the islands of the West Indies form a half circle that almost encloses the Caribbean Sea. The hundreds of islands making up this group lie in the tropics. Frost is unknown there, even on the highest mountains of the islands. Abundant rains keep the islands green. Steady winds, called *trade winds,* blow from the Northeast. The trade winds help to make the seacoast lands pleasant and healthful.

The four largest islands of the West Indies are Cuba, Hispaniola, Puerto Rico, and Jamaica. To the north are the Bahamas, a group of about 700 small islands. These islands are the possessions of Great Britain. The chief port is Nassau.

The sugar islands

The Spanish valued the West Indies because possession of these islands gave them control of the sea routes to Mexico, Central America, and northern South America. Soon they found another reason for valuing the West Indies. When they found that sugar cane grew well on these islands, sugar plantations were started. In the 1600's Britain, France, the Netherlands, and Denmark took possession of some of the smaller islands. These nations also wanted sugar.

Plantations require large numbers of workers. Thousands of Negroes were brought to the West Indies to work on the sugar plantations. Many of the inhabitants of the islands today are the descendants of these Negroes and of the Spanish. Haiti is proud of being a Negro republic. The people of Jamaica are almost entirely of the Negro race.

Cuba, an island nation

Cuba is the largest nation in the West Indies. It is nearly as large as Pennsylvania. Havana is the capital. Cuba's climate is warm all year, and there is enough rain to raise good crops. Farming is the chief business. The principal crop is sugar cane. Sugar and tobacco are sold abroad to earn money to buy manufactured goods and oil. Corn, rice, and beans are raised as food for the people.

About 6,466,000 people live on the island. Most of them have never earned a good living. They are very poor. At times they have suffered under the rule of greedy dictators.

In 1959 a bearded soldier named Fidel Castro and his troops overthrew the government. Castro made himself prime minister. He promised the people good jobs. No more, he said, would they fear a dictator's police and soldiers.

But Castro did not keep his promises. He became a dictator—a Communist one. His police arrested thousands and punished them without fair trials. Hundreds were shot.

Cars, wagons, people, and even burros use the Pan-American Highway through Latin America. The building of the highway shows countries of the New World co-operate for mutual benefit.

Ewing Galloway

Puerto Rican News Service

Shown above is a new apartment project built by the government in Puerto Rico. Puerto Rico's crowded living conditions have been greatly eased by large-scale housing projects such as this.

From the beginning Castro has been unfriendly to the United States. We had been buying more from Cuba than any other nation did. But Castro seized United States property in Cuba without paying for it. He has been unfriendly in other ways too. So we stopped buying Cuban sugar.

Castro has been trying to spread communism in other American countries. Soviet Russia and Communist China have helped him in this by sending him planes and guns. They also buy Cuba's sugar but pay less for it than we did.

An important meeting of the Organization of American States was held in Uruguay in 1962. The purpose of this organization, which was created in 1948 by the United States and the Latin-American nations, is the maintenance of peace and the defense of the Western Hemisphere. The representatives at the meeting in Uruguay showed their disapproval of Castro's Communist activities by voting to exclude Cuba from the Organization of American States.

Below are shown some of the comfortable homes that have been built in Puerto Rico recently. Each of these homes is for a single family. The people are proud of these modern houses.

Puerto Rican News Service

The Commonwealth of Puerto Rico

Puerto Ricans, like other Latin Americans, love fiestas. Early in 1956 they held a week-long fiesta. The cause for celebration was that manufacturing had passed farming as the island's chief activity. Puerto Rico is the only Latin-American region where most of the people do not make a living by farming.

The growth of factories in Puerto Rico resulted from a plan by one of the island's governors. He understood that the many people of the crowded island needed ways of making a living other than farming. To attract manufacturers into the country, he made the taxes on new factories very low.

Soon businessmen from the United States saw the advantages of building factories on this island where there were many workers. During the next ten years more than 400 factories were started in Puerto Rico or moved to the island. The workers in these factories make radio and television tubes, kitchen mixers, tools, clothing, chemicals, plastics, and many other products. Raw materials for the products are shipped to Puerto Rico, and the finished goods are sent back to the United States to market.

The old Puerto Rico is a land of sugar cane on the small plains and of tobacco farms and subsistence farms in the hills and mountains. But the new Puerto Rico is a rapidly changing land.

Do you know—

1. What natural regions does Mexico have?
2. How do Mexicans make a living?
3. What are the chief products of Central America? Of the West Indies Islands?
4. Why is the Panama Canal important?
5. Why is Puerto Rico changing rapidly?

Words and Terms to Remember

convoy
sisal
hacienda
fiesta
sombrero
jai-alai
subsistence farmer
conquistador
trade wind
patio
ejido
reforms

A Matching Game

Number a paper from 1 through 12. After each number write the word or term from the list above which matches the definition.

1. Improvements or changes to correct abuses in government
2. A festival, or holiday celebration, in Latin America
3. A group of ships sailing together for safety
4. A fiber obtained from henequen leaves, used to make rope or twine
5. A large hat with a wide, turned-up brim
6. A ball game played with rackets on a court, popular in Latin America
7. A large government-owned farm in Mexico which is cultivated by a group of farmers who share the work and the crops
8. An early Spanish conqueror
9. An estate or plantation in Spanish America
10. A worker on the land who raises barely enough to live on
11. An open courtyard around which a house is built
12. A steady breeze in the West Indies that comes from the Northeast

Standard Oil Co., (N.J.)

Llamas are important as beasts of burden in Peru. These sure-footed animals can make their way easily over the steep and rocky mountain trails. In addition, they supply meat and wool.

3. LIVING IN THE ANDEAN LANDS

Venezuela, Colombia, Ecuador, Peru, Bolivia, and Chile are lands through which the Andes Mountains run (see the map, page 182). In all these lands, except Chile, most of the inhabitants live at high elevations rather than near sea level, because the hot, tropical lowlands are not comfortable or healthful. In temperate Chile the people live on the plains and in the valleys near sea level.

HISTORY OF THE ANDEAN LANDS

For several hundred years following the Spanish conquest Spain ruled the Andean lands and used them for its own gain. Millions of dollars' worth of gold and silver were taken to Spain. One half of all the silver in use in the world in 1600 came from one Andean mine.

Colonial government

Lima, the capital of Peru today, was built by the Spanish in 1535. For many years it was their center of government in South America.

In colonial times Spaniards born in Spain held all the government offices and controlled all the business enterprises. The Indians and the *mestizos* (persons of mixed white and Indian blood) did the hard work on farms and in mines. The *Creoles,* or persons born in the New World of Spanish parents, paid high taxes but had little part in the government. As time passed, they became dissatisfied and began to think earnestly of making South America free. The American Revolution helped to inspire them to action.

Revolutionary leaders

Early in the 1800's the Creole revolt against Spain began to come to a head. On the island of Hispaniola, Toussaint L'Ouverture led his fellow slaves in a fight against the French. Thus Haiti became, in 1804, the first Latin-American country to become free.

Two priests, Hidalgo and Morelos, began the movement to free Mexico from Spanish rule. Simón Bolívar, who was born in Caracas, Venezuela, led the revolution in the Andean lands. José de San Martín was the great patriot of Argentina. Bernardo O'Higgins, son of an Irish father and Indian mother, was the liberator of Chile and the nation's first president.

Today these revolutionary leaders are honored in Latin America. Statues of them adorn the plazas in the large cities. Streets and parks are named for them. Venezuela is especially proud of having been the birthplace of Bolívar.

VENEZUELA, A NEWLY RICH LAND

When the early Caribbean explorers first saw the shallow bay now called Lake Maracaibo, they found Indian villages built on piles over the water. These villages reminded them of Venice, an Italian city that is also built on piles over the water. So they named the country Venezuela, or "little Venice."

Venezuela is almost as large as Texas and Colorado together, and its population is two thirds that of Texas alone. The map on page 182 shows that the Andes Mountains do not cover a very large area of the country. Still, most of the people live in the mountain region. Much of the country is a plateau region. In the north, along the Caribbean coast, is a low plain. In the central and eastern parts of the country are extensive grassy plains called the *llanos*. This is the Spanish name for "plain." The mighty Orinoco River flows northeastward through the llanos. In eastern and in southern Venezuela are the forested Guiana Highlands.

Great oil fields

Above the waters of Lake Maracaibo, where Indian villages once stood, towering oil derricks now rise. The oil fields extend

Standard Oil Co., (N.J.)

Oil derricks rise high above the waters of Lake Maracaibo in Venezuela. This lake is the greatest oil region in all South America, and oil profits have made it possible for the people to live better.

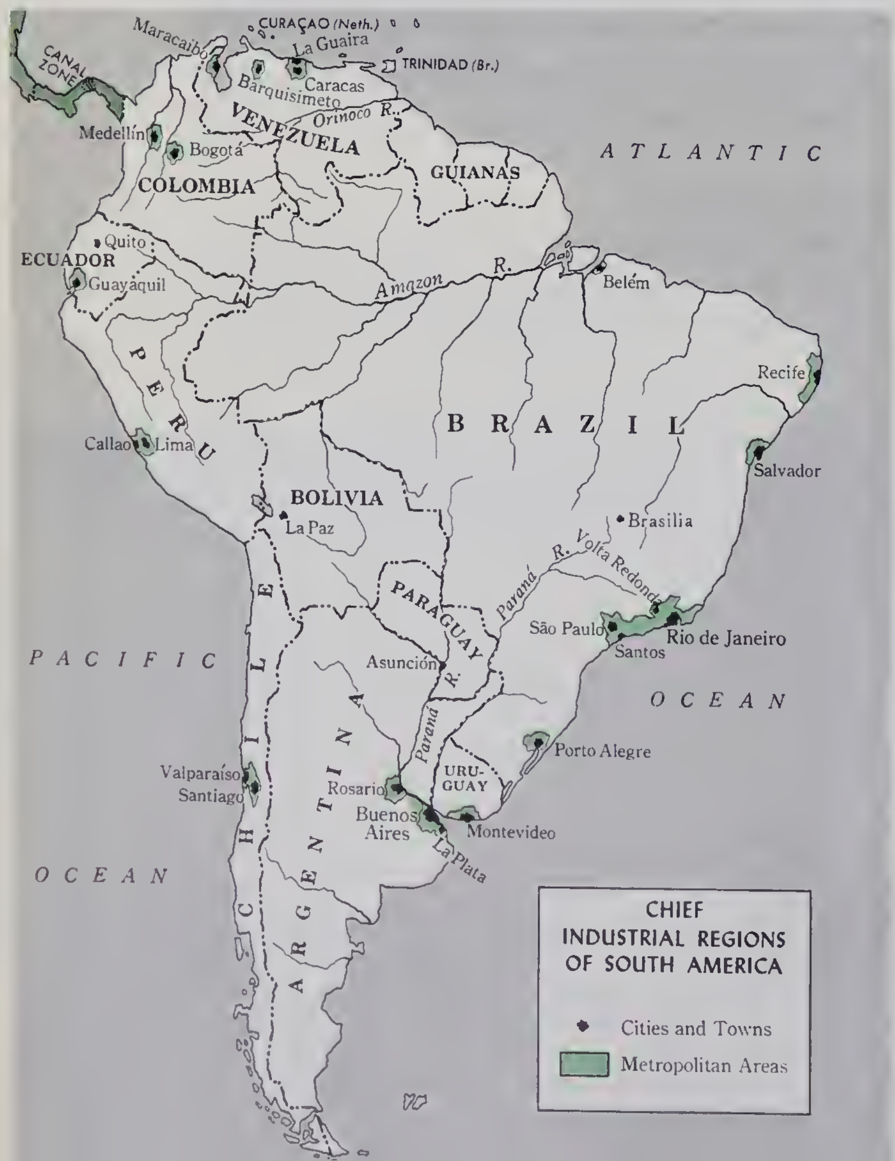
into the near-by plain. Oil has also been found in other parts of Venezuela.

Venezuela is second only to the United States in the production of oil in the Western Hemisphere. Its crude oil is shipped to the Dutch islands on the Caribbean coast or to the United States for refining.

A large part of the money from the oil is paid to the government of Venezuela. It uses the money to build roads, parks and plazas, government buildings, and schools. Venezuela now has the best highway system of any nation in Latin America.

A fine highway connects the seaport of La Guaira with the capital city of Caracas, which lies in a wide valley of the Andes. Caracas itself has been almost completely rebuilt with oil money. New apartments and houses have been built, and a fine school system has been established.

On the map below find the cities of South America that are centers of industry. What reasons can you give as to why these cities developed industries and others did not?



The oil boom has caused great changes throughout Venezuela. New roads from the modern capital to the mountain villages and to the llanos have changed the ways of the rural people. Fewer persons now work on farms because many former farmers are now employed in the oil fields. As a result, Venezuela now has to import some of its food.

Rich iron-ore deposits

Not long ago large deposits of iron ore were discovered in eastern Venezuela. Scientists count these deposits, which contain more than 60 per cent of metallic iron, as the greatest iron discovery in recent times.

Two companies from the United States mine the iron ore from great open pits on the mountainsides. Railroads have been built to take the ore to ports on the Orinoco River. Ships then carry the ore to various ports in the United States.

The government of Venezuela receives most of the profits from its iron ore, just as it does from its oil. This money has been used to build new towns, hospitals, schools, and roads, many of them in and near the mining area. If the country's oil supply should be exhausted, the iron ore will probably continue to bring in money for many years.

COLOMBIA, LAND OF COFFEE

The Republic of Colombia was named for Columbus, who explored part of the region on his third voyage to the New World. Colombia is about three times as large as California. Its population is somewhat larger than that of Pennsylvania.

Natural regions

Much of Colombia lies in the Andes, but narrow lowlands stretch along both the Caribbean Sea and the Pacific Ocean. These coastal lands are hot tropical jungles. Across eastern Colombia stretch the low flat llanos. The southeast is covered by the thick tropical forests of the Amazon River valley. Find these areas on the map, page 182.

Where the people live

Most of the people of Colombia live on the plateaus and in the valleys of the Andes. But people live also in the valley of the Magdalena River, which flows from the Andes to the Caribbean Sea. This river with its valley is the highway from the peopled areas of the mountains to the seacoast. The upper mountain valley of the Cauca River, a tributary of the Magdalena, is one of the most densely inhabited parts of the country.

Bogotá, the capital of Colombia, lies in the Andes. It is about the size of Baltimore. Bogotá was founded by the Spanish in the early days of the conquistadores. Their descendants still live in some of the houses built in colonial times. Medellín, in the Cauca Valley, is an important manufacturing, mining, and coffee-marketing center. Find these cities on the map, page 202.

The coffee lands

Some of the world's finest coffee comes from Colombia, which is second only to Brazil in world coffee production. Colombian coffee is grown on mountain slopes. These farms may be as high as 7000 feet above sea level. In certain regions the coffee lands have such steep slopes that the bags of coffee beans have to be brought down the mountainsides on the backs of burros. In Colombia the coffee lands are small farms. In this, Colombia differs from other coffee-growing areas of South America, where coffee is chiefly grown on large plantations. The highland farmers who do not grow coffee are mainly subsistence farmers. They are Indians who still use primitive farming methods.

Standard Oil Co. (N.J.)

Much coffee is grown in the highlands of northern South America. This air view shows a coffee plantation on a hillside in Colombia.

Along the Caribbean

Barranquilla and Cartagena are seaports of Colombia on the Caribbean. Barranquilla is at the mouth of the Magdalena River. Cartagena, an old Spanish city, is surrounded by a high wall. The wall was built to keep out pirates in the days when gold and silver were stored there while waiting for ships from Spain to carry the treasure away. Today Cartagena is reached by railroad from the river. On the plains near these cities are large banana plantations. Bananas are one of Colombia's largest exports.

ECUADOR, LAND OF THE EQUATOR

Ecuador is the Spanish word for "equator." The republic is a little larger than Colorado. It stretches across the Andes from the shore of the Pacific Ocean to the jungles of the upper Amazon River valley.

Climate

The equator runs just north of the capital city of Quito. This city is 9300 feet, or nearly two miles, above sea level. Because of its altitude, Quito is cool at all times, even though it lies close to the equator. In the beautiful plaza in the center of Quito, however, tropical trees grow. This tells us that Quito has no frost.

Mountains near Quito rise as high as 10,000 feet above the city. These mountains are so high that they are always covered with snow, even though they are at or near the equator. Some of the mountains are volcanoes. Quito has not been troubled by volcanic eruptions, but it has been visited by earthquakes on several occasions.

How people live

Most of the people of Ecuador live on the Andean uplands and plateaus near Quito, but some live in the tropical lowlands near the Gulf of Guayaquil. Nearly all who live in the Andes are Indians. Those in the gulf region are mainly mestizos.

The inhabitants of Ecuador have a very low income. Most of the people who live in the Andes are subsistence farmers.

The people of the tropical lowlands make their living on large banana and cacao plantations and in the tropical forests. The bananas are shipped from the seaport of Guayaquil to the Pacific coast of the United States. Ecuador's cacao beans are also shipped to the United States to be made into chocolate and cocoa. The forests yield mahogany, other tropical hardwoods, and balsa wood. Balsa is a very light wood used for making light boats and airplane models.

PERU, LAND OF CONTRASTS

Peru, which was once the heart of the great Inca empire, is about twice as large as Texas. It has 10,857,000 people.

Peru is a land of contrasts. It has hot lowlands, where tropical products grow. But most of Peru is mountainous with vast plateaus and deep valleys. In these uplands of hot sun, cool shade, and chilly nights, cold-climate products are raised.

Peru has deserts, but it has rainy regions as well. The mines of Peru have made men rich from the days of the Spaniards to the present. But many Indians now live as subsistence farmers in the land of the Incas.

Natural regions of Peru

Peru has three natural regions. The narrow strip of land along the Pacific coast lies in the dry and brown Atacama Desert. The Andes Mountains and the high plateaus among the ranges form the second region. The eastern part of Peru lies in the hot, tropical lowlands along the Amazon River and its tributaries.

Most of the people live in the Andean region. The Spanish who went there in colonial times were interested in mining, for the plateaus were rich in gold and silver. However, few Spaniards settled in the highlands. For this reason, the people of the Andes today are still almost all full-blooded Indians.

Products of Peru

In Peru the early Spanish first saw white potatoes. The potato, true to the land of its origin, grows best in a cool climate. The

LIVING IN THE ANDEAN LANDS

The city shown at the right is Caracas, capital of Venezuela. It lies in a valley surrounded by high mountains. Each year many tourists visit this beautiful and modern city.

J. Barnell from Shostal

Hilty from Monkmeyer

Above is part of the market place in a Peruvian town. The natives of Peru produce beautiful handmade goods.

Ewing Galloway

A Peruvian Indian boy poses with his llamas. Notice the round hat on his head and the brightly striped poncho.

Spanish took potatoes home and planted them. From Spain potatoes were taken to Ireland, where they grew well. The English colonists in North America obtained potatoes from Ireland and used them as seed. That is why we sometimes refer to this vegetable as the Irish potato.

The Indian farmers of the Andean plateaus still live much as their ancestors did. They grow corn, potatoes, and grain in tiny, rocky fields. They grow *quinoa,* a tall plant cultivated by their Inca ancestors. The round seeds of the quinoa plant are used as a grain. The leaves of the plant are eaten as a vegetable. Quinoa will grow on land as high as 13,000 feet above sea level in the Andes. Potatoes and quinoa were the chief foods of the Incas.

The Incas had two work animals, the llama and the alpaca. These animals also gave them meat and wool. The Indian farmers today use horses to work in the fields and burros to travel on steep mountain trails. Thousands of sheep graze on the uplands and furnish meat and wool for the warm clothing needed in that cool climate.

Mining in the Peruvian Andes

Mining has been important since Spanish days. Today the largest and most modern mines are copper and zinc mines. Mining in Peru has become particularly important since the opening of the Panama Canal. Can you tell why? Many of the mines are owned by United States companies. Important deposits of minerals are in the high mountains. Roads and railroads have been built from the coast to the mines. One Peruvian mine is the highest in the world. It is a *vanadium* mine, which is more than three miles above sea level. Vanadium is a metal used in making steel tougher and harder.

Living in coastal Peru

The Atacama Desert extends along the entire coast of Peru. A cold ocean current, which flows along the shore, causes a fog to rise. The desert lands near the shore are foggy, but they are dry. The Atacama is one of the driest deserts in the world. Years pass without any rain falling there at all.

Peru is fortunate in that more than fifty small rivers flow across the desert from the Andes Mountains to the Pacific. These rivers furnish water for irrigation. There is a ribbon of irrigated land along each of the fifty rivers, and it is in these green valleys that the people live. Each valley is separated from its neighboring valley by desert lands.

The Spanish had large estates in the irrigated valleys. The ways of living of the people in these valleys are mainly Spanish rather than Indian. Some valleys are owned today by only a few families. Work on the estates is performed by day laborers.

Sugar cane and cotton are grown in these valleys. The cotton is valued for its long fibers and brings a high price. Both raw sugar and cotton are exported from Peru.

Lima, the capital, is an old Spanish city. It lies in one of the irrigated valleys of the desert region. Its seaport, Callao, is at the edge of the valley. Lima has beautiful plazas and buildings, a fine cathedral, and one of the oldest universities in the Americas.

Living in the eastern lowland

The eastern tropical lowland of Peru is drained by rivers that flow into the Amazon. This lowland is a tropical jungle. But ships can sail up the Amazon for 2300 miles from the Atlantic Ocean, through Brazil, to Iquitos, in Peru. Tropical products are shipped from Iquitos down the river to the outside world markets.

LANDLOCKED BOLIVIA

Bolivia is about as large as Colombia. It has about 3,500,000 people. Bolivia once had a seacoast on the west, in the Atacama Desert. Then rich nitrate fields were discovered in the desert. Chile fought both Bolivia and Peru for possession of the fields. Chile won the war and took possession of the nitrate fields in 1884. Bolivia has been landlocked ever since. Peru also lost territory to Chile at that time.

Natural regions of Bolivia

Bolivia contains two natural regions. One of these is a high and wide plateau among the ranges of the Andes. Most of the people live on this plateau.

Bolivia's second natural region is in the east. This region is a tropical lowland. In 1938, following a war with Paraguay, Bolivia lost part of this lowland.

The silver of Potosí

In colonial days the Spanish found in Bolivia a treasure in the form of a mountain of silver. At the base of the mountain they built, in 1547, the silver-mining city of Potosí. Within a few years the population of Potosí had reached 160,000. During the 1600's Potosí was the largest city in all North America and South America. For fifty years half of all the silver known in the world came from this great mine. It contributed enormously to the wealth of Spain.

Today Potosí has only 40,000 people. Mining continues, but new ores have been discovered. The mountain now yields silver, tin, copper, and lead.

Living on the plateau

The high plateau is the heart of Bolivia. During the 1820's the country was freed from Spain by armies led by General Sucre, one of Bolívar's officers. One of Bolivia's two capitals is named for Sucre. La Paz, the other capital, is the largest city of the nation and the highest capital city in the world.

Bolivia is supported by its mines, in which a large part of the population is employed. Bolivia is one of the chief tin-producing nations of the world. The tin ore is exported, by way of a seaport in Chile, to the United

Fenno Jacobs from Three Lions

La Paz is more than two miles above sea level. It is the highest big city in the world. La Paz is one of Bolivia's two capitals. The other capital, Sucre, is the official one, but most government business is carried on at La Paz.

States and to England for smelting. Silver, copper, lead, zinc, and other metals are mined at several other places in Bolivia. Some gold also is produced. Bolivia, however, has no coal. It must, therefore, export all its minerals because they cannot be smelted, or refined, at home.

The Indian farmers of the plateau are mainly subsistence farmers, just as they are in neighboring Peru. The farmers who live near the cities and the mines sell their products in the mining towns and in the cities. Indians make up more than half the population of Bolivia. In the plateau region they still speak the languages of their ancestors and preserve the customs followed before the Spanish conquest.

Lake Titicaca belongs in part to Bolivia and in part to Peru (see the map, page 182). This large lake, which is about 12,500 feet above the level of the sea, is the highest navigable lake in the world.

CHILE, A LONG, NARROW LAND

Chile is 2600 miles long. At no point is it as much as 200 miles wide. The Pacific Ocean and the Andes Mountains are close to all parts of Chile. The country experiences many earthquakes. One in 1960 caused the loss of many lives. Chile is a little larger than Texas, but it has only two thirds as many people.

Three natural regions

The northern one third of Chile is a part of the Atacama Desert (see the map, page 182). This is a mining region. The central part of Chile possesses a Mediterranean climate. It is a rich farming area. Here, too, are the principal cities of the nation. The southern one third of Chile is still heavily forested with pines and other trees. This region receives much rain. Mountains extend to the sea, and there are large lakes, bays, and fiords, as in Norway. The Strait of Magellan belongs to Chile. Use of the strait by ships is shorter and less dangerous than the trip around Cape Horn, which is on a rocky island rising out of very stormy and rough waters.

Mining in the north

The desert in northern Chile has deposits of nitrates, iron ore, and copper. Nitrates, which are used in making fertilizer, dissolve easily like salt. If there were rains in the north of Chile, the nitrates would be dissolved and carried to the sea. But the Atacama Desert is as dry in Chile as in Peru. In nitrate mining the nitrates are scooped up by modern machines, loaded on railroad cars, and taken to mills for crushing before export. At one time Chile controlled most of the world's supply of nitrates. But now nitrates are manufactured from nitrogen in the air. Large plants in the United States, Norway, and elsewhere make nitrates in this way. Chile now controls only the world's supply of natural nitrates.

One of the copper-mining areas of north Chile has the largest-known single copper deposit of the world. Both copper and iron ore are exported to the United States. Water is piped into the mining towns and the seaport cities from the Andes.

Farming in central Chile

Many large estates from colonial times still exist in Chile. About 5000 people own nine tenths of the land of central Chile. These landowners, who are of Spanish descent, are very rich. Mestizo workers live in one-street villages on the estates. They have no chance to own land. The mestizo worker of today lives much as his ancestors did in the 1600's.

Many products are grown in the balmy Mediterranean climate. The land is irrigated during the dry summer with water from mountain streams flowing from the Andes. Orchards, vineyards, groves of orange trees, and wheat fields are important in this part of Chile. Much of the land, however, is pasture, on which cattle and sheep graze.

Lumbering in south Chile

Lumbering is important near the seacoast of the south. Chile supplies wood products to the mines of the Andean highlands of Peru and Bolivia. Lumber is shipped to Argentina and Uruguay, since these lands contain few forests. Compare these five lands on the map on page 182.

South of the Strait of Magellan, the large island of Tierra del Fuego is an important sheep-raising land. Wool is exported from Punta Arenas. Punta Arenas is the most southern city in the world.

Living in the cities

Santiago, the capital of Chile, is a city of 1,700,000 people. It is the fourth city in size in South America. A range of low mountains separates Santiago from its seaport of Valparaiso. To the east of Santiago, the beautiful snow-covered Andes can be seen. Rising above the other peaks is Mount Aconcagua, almost 23,000 feet above sea level. Mount Aconcagua is the highest peak in the Western Hemisphere. The mountain is in Argentina.

Crossing the Andes

Santiago and Mendoza, in Argentina, are connected both by railroad and airplane. The route then continues to Buenos Aires.

High in the Andes, on the boundary between Chile and Argentina, rises a magnificent statue of Christ. Called the "Christ of the Andes," this statue is a symbol of peace between the two nations. About 1900 Chile and Argentina had several boundary disputes, and it seemed as if there would be war. But the disputes were settled in a conference. The statue was erected as a symbol of peace and good will. It stands today as a reminder that nations can settle their differences without going to war.

Shostal

This statue of Bernardo O'Higgins stands in Santiago, Chile. O'Higgins is honored by the people of Chile as the hero of the revolution in which Chile gained its freedom.

Do you know—

1. What are the Andean lands? Where are they located?
2. What are the people like in each nation?
3. What are the chief exports of each nation?

Moore-McCormack Lines

On the pampas of Argentina cattle are rounded up by Argentine cowboys, called gauchos. The raising of cattle is an important occupation, and beef is one of Argentina's leading exports.

4. THE PLATA RIVER LANDS

Argentina, Uruguay, and Paraguay are the Plata River lands. Argentina and Uruguay touch the Rio de la Plata, or Plata River, a large bay of the Atlantic Ocean. Find these countries and the bay on the map, page 182.

Through Paraguay flow the Paraná and Paraguay rivers. The Paraguay flows into the Paraná at the southern tip of the country. The Paraná then flows to the Rio de la Plata. Paraguay, therefore, is one of the La Plata lands, and boats can carry the nation's products to the sea. The Uruguay River also empties into the Rio de la Plata. Thus, an important river system of South America reaches the sea in the great bay of the Rio de la Plata. Buenos Aires and Montevideo, the capitals of Argentina and of Uruguay, are located on opposite sides of the bay.

The Paraguay, the Uruguay, and the Paraná rivers drain more than 1,000,000 square miles. A large part of this area is known as the breadbasket of South America. It supplies food for home use and helps to feed the people of Europe also.

FERTILE ARGENTINA

Argentina is about one third as large as the United States. Its population is almost as large as that of New York and Indiana put together. This rich land produces much more food than the nation needs. Argentina has a great network of railroads. On these railroads the products of the farms and ranches are carried to Buenos Aires for export.

The Spanish, under the leadership of Sebastian Cabot, explored the coast of Argentina in the 1500's. On a voyage up the Paraguay River, Cabot met Indians who wore silver ornaments. So he called the land Argentina, a name which means "silver." The Indians had actually obtained the silver in the Andes Mountains of what is now Bolivia. Argentina itself had neither gold nor silver. For this reason, the Spanish did not come in large numbers to Argentina.

The fertile plains around the Rio de la Plata were not settled to any great extent until after 1800. In fact, most of the people of Argentina are descended from Europeans who moved to the country after 1850. Many of these settlers came from Italy and Spain. Today most of the people of Argentina are of European descent.

Argentina became free of Spain under San Martín's leadership in 1816. For a dozen or more years there was trouble over boundaries with Brazil, a Portuguese colony. Finally, Uruguay was established as a *buffer state* between Argentina and Brazil. A buffer state is a small nation placed between two larger states to prevent border disputes.

Argentina's natural regions

In the northwest, Argentina reaches into the plateaus of the Andes. South of these highlands the Andes separate Argentina and Chile. Northern Argentina, which borders Paraguay, is in the tropics. The narrow southern part is a dry, cold region called Patagonia. A flat, rich plain region, called the *pampas,* is the heart of the nation, where most of Argentina's people live.

Living on the pampas

The pampas extend in a great semicircle around Buenos Aires. The area was a grassland, or prairie, when the first settlers arrived. Now, much of it has been plowed up. The rich, black soils produce large crops of wheat, corn, oats, barley, flax, and alfalfa. Millions of cattle and sheep graze on excellent pastures. The region closely resembles the central plains of our land.

The Spanish granted large estates on the pampas. Wealthy landowners, who maintain large herds of cattle and flocks of sheep, own much of the heart of the pampas region. Argentine cowboys, called *gauchos,* work on the estates. Their songs and dances are as famous in Argentina as are the cowboy songs in our own land.

The outer edges of the pampas on the north, west, and south lay beyond the region where estates were granted. These regions are farm lands owned chiefly by settlers who came to Argentina after 1850. Crops are more important than cattle and sheep on these farms. Corn is the chief crop in the north, and wheat in the west and south of the pampas. There is some dairying, too.

In the tropical north sugar cane grows well. There are irrigated vineyards at the base of the Andes. In Patagonia, in southern Argentina, the land is much too dry and too cold for crops. But it is fine sheep country. Wool and mutton are exported.

Living in the cities

The people of the cities, from large Buenos Aires to the smallest town, make their living mainly by working with the products of the farms. They process the farm products. Other people have jobs in stores, selling goods to factory workers, farmers, and others. The capital city of Buenos Aires also has many government workers.

Buenos Aires, a city of about 3,800,000 inhabitants, is the largest city in Argentina. It is also the largest city in South America. Buenos Aires is an old city, but it did not grow large until the pampas were settled. Wide boulevards, regular and straight streets, dozens of plazas, and fine government buildings beautify the city. The capitol is an especially beautiful building. Buenos Aires is a cultural center, with art galleries, museums, an opera house, and many cathedrals and churches. Tall office buildings and apartments show the city's recent growth.

On the miles of docks of the harbor, beef, mutton, wool, hides and skins, corn, barley, flaxseed, cheese, and other farm products are handled for shipment, mainly to Europe.

Pan American Airways

Buenos Aires, the capital of Argentina and Latin America's largest city, is also an important port and a great commercial city. The capitol stands on this beautiful plaza, or park.

Large meat-packing establishments are Argentina's chief manufacturing plants. Aside from food-processing plants, however, Argentina has few factories. The nation exports food to Europe and imports goods and machines manufactured in Europe.

Large ocean-going ships can sail up the Paraná River to Rosario. This city is the great exporter of corn and corn products. For a city of its size, Rosario is as busy as Buenos Aires.

URUGUAY, A PROGRESSIVE REPUBLIC

Uruguay is the smallest republic in area in South America. It is a little larger than Oklahoma in area and in number of people. Uruguay is the only South American country where all the land is settled. It has no "empty areas."

The region that is now Uruguay was first explored by a Spaniard named Juan de Solis, who landed there with seven companions in 1515. As soon as the Spaniards went ashore, they were killed by Indians. For many years the Spaniards avoided the region. They called the region the Banda Oriental, meaning the "eastern bank," of the Plata River. When Uruguay was established as a nation, it called itself the Republica Oriental del Uruguay. This is the name by which its people know it today.

Uruguay's resources

Uruguay is a rich and beautiful land. Its wide, rolling plains are covered with grass. These lands make fine pastures, and the nation's chief industry is stock raising. Millions of cattle and sheep graze on the large estates of Uruguay. Gauchos work on the estates. Uruguay has half as many sheep as Argentina, and one fourth as many cattle.

Uruguay has no great forest lands, but it does have some hardwood timber. There are large deposits of gold in the northern hills. Uruguay has abundant supplies of granite and of marble in an amazing variety of colors. But, on the whole, Uruguay does not have important mineral resources.

Living in Montevideo

One out of every three persons in Uruguay lives in Montevideo, a city the size of Baltimore. Montevideo is the capital and the only large city in the nation. The occupations of the people of Montevideo are the same as those of Buenos Aires. The people resemble the people of Argentina in that they are mostly descended from Spanish and Italian immigrants who came during the last one hundred years.

Uruguay's social experiments

Among the countries of South America the government of Uruguay is the most forward-looking in the many kinds of benefits it provides for its people. It has a fine, free school system. Three out of four Uruguayans can read and write. This is a high percentage for Latin-American countries. Workers have many benefits under Uruguayan laws. The government provides free medical services of all kinds.

PARAGUAY, AN UNDEVELOPED LAND

Paraguay is a tropical land which covers an area as large as California. It has 1,768,000 people, many of whom are mestizos. The people of the cities are mainly of Spanish descent. In rural areas they are of mixed Spanish and Indian blood. Most Paraguayans can speak two languages, Spanish and the Indian tongue of their ancestors. But Spanish is the language that is taught in the schools of Paraguay.

Asunción, the capital, is a river port on the Paraguay River. Founded in 1537, it was an important place when the mines in the Andes were developed. Some of the silver from the great mine at Potosí was brought to Asunción, where it was shipped down the river to the ocean, and then to Spain.

Rapho-Guillumette

This small park or plaza in Montevideo is called Independence Square. What do these trees tell you about the climate of Uruguay?

Paraguay's history

Paraguay became independent of Spain in 1811, without revolution or bloodshed. But its life as a nation has been an unsettled one through much of its history. The republic has had many wars. It has had many dictators, some of whom ruled badly. The first president shut off the mails, stopped foreign trade, and completely cut Paraguay off from the rest of the world. He was succeeded by his nephew, who also ruled as a dictator.

A third dictator decided to make Paraguay a great power in South America. To that end he built up a strong army. He also built up a strong navy on the Paraguay River. Then he started a war against the neighboring countries of Brazil, Uruguay, and Argentina. The war proved disastrous for Paraguay. The nation lost more than 1,000,000 people, including most of its men. Nearly as many Paraguayans were killed at that time, 1865 to 1870, as live in the nation today.

In 1932 Paraguay entered upon another war, this time against Bolivia, in a dispute

Ewing Galloway

The leaves of the yerba mate are used in making a favorite drink in some South American countries. Here the mate has been cut and loaded on carts.

over boundaries. Although Paraguay gained some territory, it again lost many men in the war and spent much money and material.

Paraguay's products

Paraguay is a nation of large estates and small farms. There are great differences in the standards of living of the large landowners and the very poor farmers. Sugar cane, cotton, and tobacco are leading crops.

Some people work in tropical forests where two special trees, the *quebracho* and the *yerba mate*, grow well. From the bark of the quebracho tree a brownish juice, or extract, is pressed. Quebracho extract is used in the tanning of leather. The leaves of the yerba mate are made into a tea, which is a favorite drink in the La Plata lands and in southern Brazil. Yerba mate is Paraguay's chief export.

Another forest activity is the gathering of castor beans from the castor-oil plant. Large quantities of these beans are exported for the manufacture of castor oil.

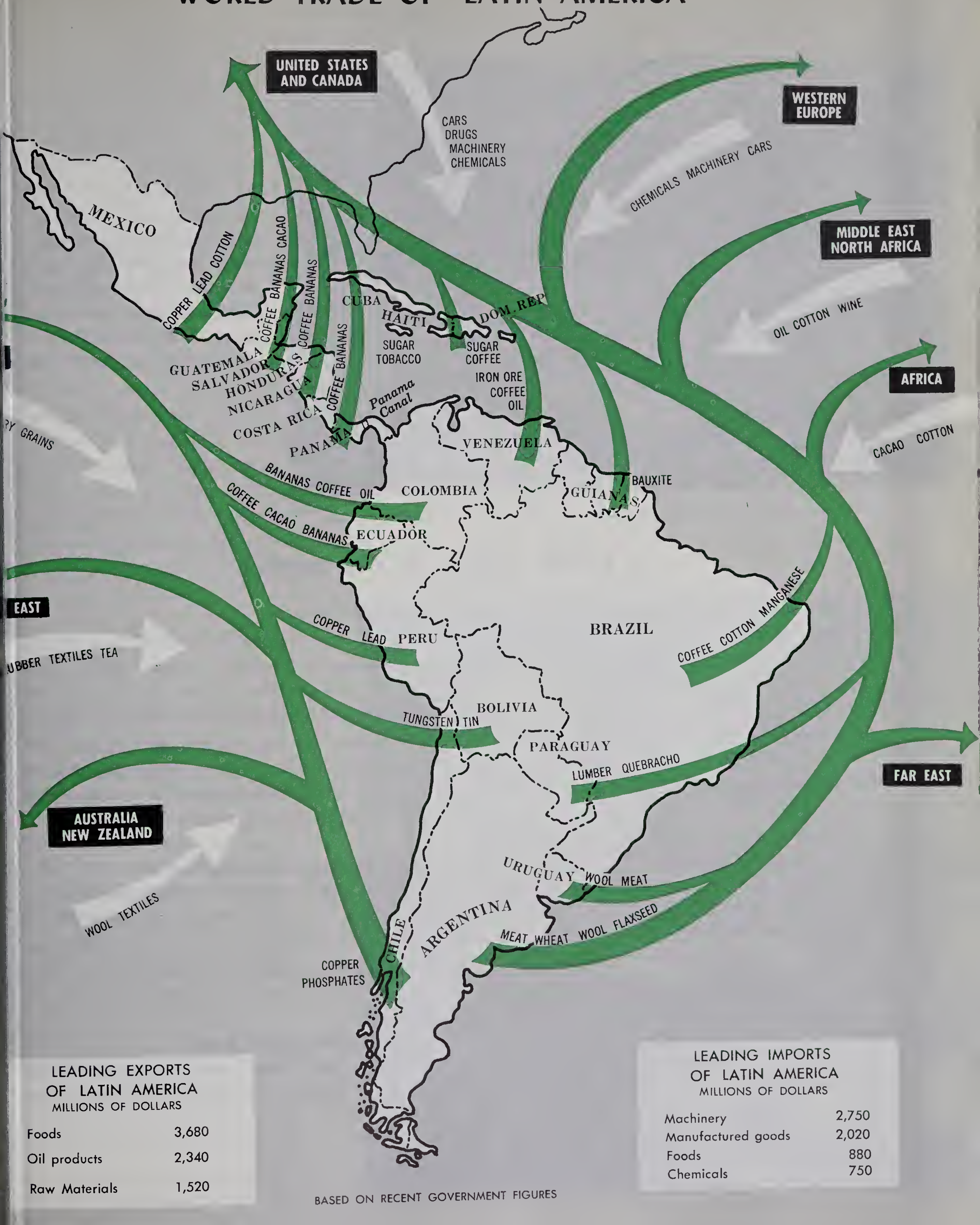
The early Spanish settlers found Paraguay a fine land for citrus fruits. Today Paraguay has large orange groves, which are grown almost without cultivation. Oranges are exported to Argentina and Uruguay. *Petitgrain,* an oil made from orange leaves, is a basis for flavoring and for perfumes. Seventy per cent of the world's supply of petitgrain, pressed from the leaves of wild orange trees, comes from Paraguay.

Paraguay is a fertile land with a pleasant climate. But its population is very small. In some areas the resources are not known because they have not been fully investigated. The nation has few skilled workers. In fact, more than three fourths of the people cannot read or write. The government has been trying to encourage immigration and to plan for the development of industries. Paraguay is thus an undeveloped land.

Do you know—

1. What are the Plata River lands? Where are they located?
2. What are the people of each nation like?
3. In what ways do the people of each nation make a living?
4. What are the chief crops of the region?

WORLD TRADE OF LATIN AMERICA



LEADING EXPORTS OF LATIN AMERICA
MILLIONS OF DOLLARS

Foods	3,680
Oil products	2,340
Raw Materials	1,520

LEADING IMPORTS OF LATIN AMERICA
MILLIONS OF DOLLARS

Machinery	2,750
Manufactured goods	2,020
Foods	880
Chemicals	750

BASED ON RECENT GOVERNMENT FIGURES

Shostal

Rio de Janeiro, Brazil's most beautiful city, has a fine port on the Atlantic. In the background is Sugar Loaf peak. Do you see why it is called by that name?

5. BRAZIL, GIANT OF THE TROPICS

The United States of Brazil is one of the largest countries of the world in area. Nearly half of the people of South America live in Brazil, but the total population is less than four times that of New York state. Indians still live in the densely forested Amazon Basin. In the far south, next to Uruguay, there are many recent immigrants from Europe.

Brazil lies almost entirely in the tropics. From the map on page 182 you see that the mouth of the mighty Amazon, the world's largest river, is practically on the equator. Notice, too, that the Tropic of Capricorn passes very close to Brazil's two largest cities, Rio de Janeiro and São Paulo. Much of eastern Brazil is a plateau, but it is not high above the sea. The climate of the plateau is warm, and in some places hot. There is enough rainfall there to grow many crops.

BRAZIL'S PAST

Brazil was discovered in 1500 by a Portuguese captain named Cabral. Brazil thus became a Portuguese possession by right of discovery. Portuguese is the official language of the country. At an early period both the French and the Dutch made settlements in what is now Brazil, but the Portuguese succeeded in driving them out.

Early Portuguese settlements

The most important Portuguese settlements were along the coast between Recife and Rio de Janeiro. Like the Spaniards, the Portuguese established themselves on large estates. Sugar cane and cotton were grown.

The government of Brazil

During the early 1800's Napoleon Bonaparte of France was conquering large areas of Europe. His armies invaded and took possession of Portugal. The royal family of Portugal escaped and fled to Brazil. After Napoleon was defeated, the government returned to Portugal. Dom Pedro, the son of the king of Portugal, remained in Brazil as head of the government. Brazil soon proclaimed its independence. This was in 1822. Unlike the Spanish colonies, which set up republics with elected presidents, Brazil chose to keep Dom Pedro as its ruler.

In 1841 Pedro II became emperor of Brazil. He ruled until 1889. In that year, when Pedro II was on a European trip, his daughter freed the slaves of Brazil. The owners of the sugar plantations suddenly found themselves without field hands, and the freed slaves were without work. Conditions were unsettled for a time, but the freedom of the slaves remained a fact. Dom Pedro II and his family had to leave the country. A republic was proclaimed.

Brazil is thus the youngest republic in South America. It has twenty states, five territories, and one Federal district.

BRAZIL'S NATURAL REGIONS

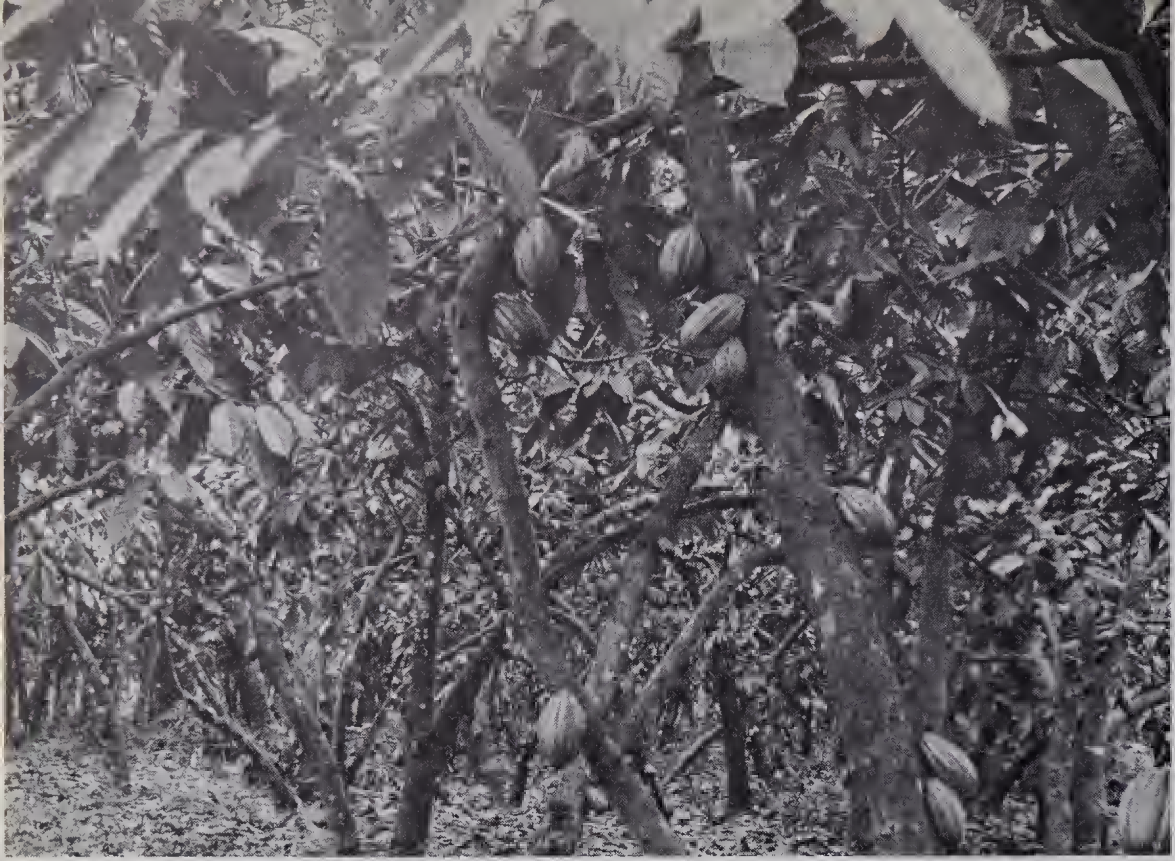
Most of northern Brazil lies in the flat and forested basin of the Amazon River and its tributaries. More than 15,000 miles of the rivers are navigable. The largest tropical forest in the world is in the Amazon Basin. The few inhabitants of the region live mainly along the rivers.

A very narrow plain lies along the east coast. This is "Old Brazil," and parts of it have been settled for 400 years or more.

The Brazilian Highlands rise sharply from the eastern plain and cover most of central and southern Brazil. As you see from the map

J. Barnell from Shostal

Two-mile-wide Iguassú Falls stand majestically on the border of Brazil and Argentina. The falls are beautiful, but they are too far from any of the large industrial centers to be used as a source of power.



The pods on cacao trees look like cantaloupes. As you see, they are attached directly to the trunks and branches of the trees. In the pods are beans from which chocolate is made.

Pan American Union

on page 182, part of the highlands drains northward to the Amazon. But the whole southern portion of the highlands lies in the basin of the Paraná River. Rivers start on the crest of the highlands, near the city of São Paulo, and flow westward to the Paraná. Iguassú Falls, the largest in South America, are on a tributary of the Paraná near the border of Brazil and Argentina.

Toward the west the highlands become lower and lower. Finally, they reach the lands, covered with tropical forests, along the borders of Paraguay and Bolivia. Much of the western part of the highlands is a great tropical grassland, or mixed grass and thorny-tree country.

Living along the coast

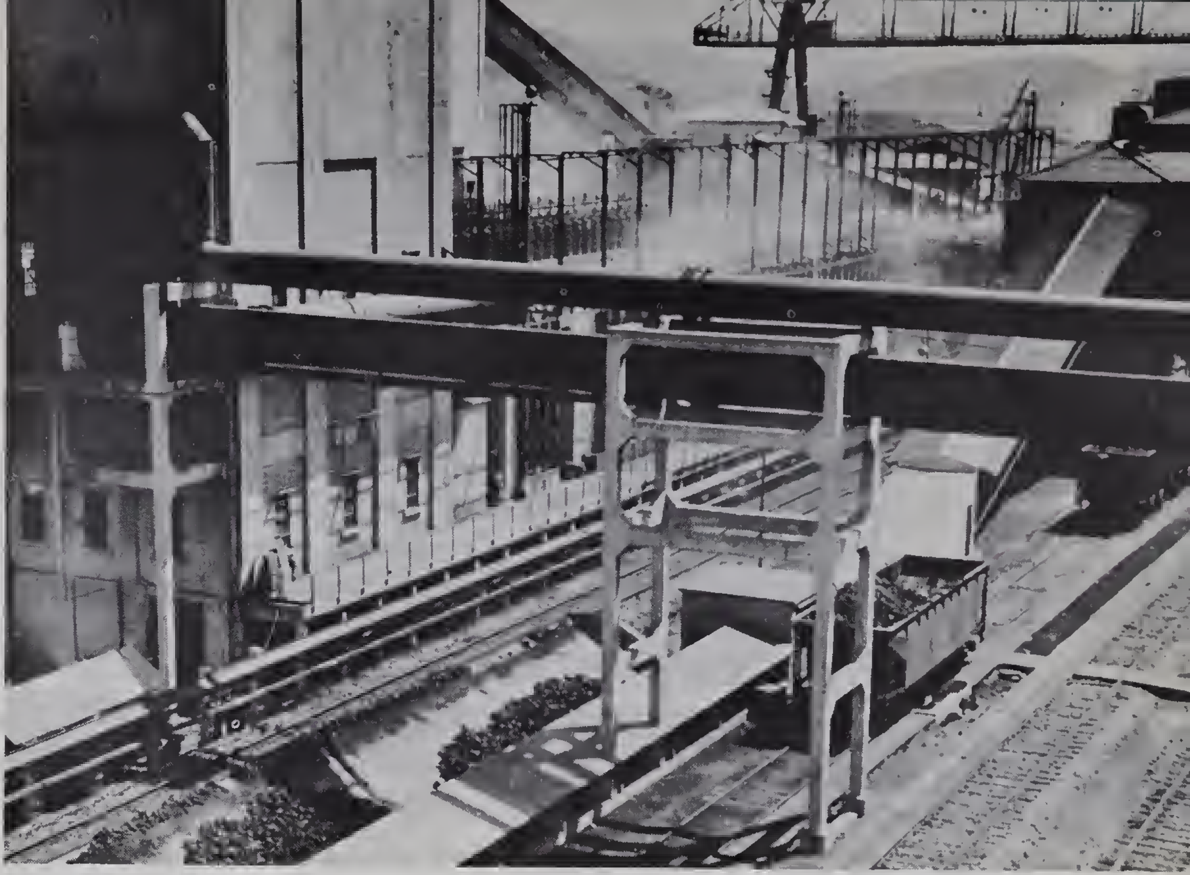
The people of Brazil's tropical coast make their living by working on farms and plantations and in fishing. Sugar cane, rice, cotton, cacao, and bananas are the most important crops. Sugar and cacao beans are exported. Rice is an important food. The cities of the coastal region have textile factories, in which the home-grown cotton is made into cloth and clothing.

Living on the plateau

The most thickly populated region of southeastern Brazil is the rolling plateau inland from Rio de Janeiro. This part of the plateau contains more than half of the people of Brazil. The settled area, however, covers only one tenth of the country.

Rio de Janeiro lies on the seacoast, but the edge of the plateau rises sharply a few miles back of the city. Santos is also on the coast. An auto trip takes the traveler quickly to the top of the plateau at São Paulo. Rio de Janeiro and Santos serve as seaports for the important farming area on the plateau.

The Brazilian Highlands produce from two thirds to three fourths of all the world's coffee. A coffee plantation is called a *fazenda*. Some fazendas are very large and may cover



Brazil's newest and most modern steel mill is this one at Volta Redonda. At present Brazil must import some steel, but eventually Brazil will manufacture enough steel for its needs.

Brazilian Government Trade Bureau

several square miles. Each fazenda contains thousands of coffee trees.

The temperatures and the rainfall of the Brazilian Highlands are just right for growing coffee. The days are warm rather than hot, and there is no frost. The abundant rains of the rainy season help the trees to grow. A dry and cool season follows the rainy period. The coffee berries ripen in the sunny weather. The berries are picked during the dry season. This season is fine, also, for drying the berries. Workers rake the beans on concrete floors where they are exposed to the warm sun.

Thousands of bags of coffee beans are shipped from each fazenda. Railroads take the bags from the plateau to the seaports of Santos and Rio de Janeiro. Coffee is the chief export of Brazil. Millions of bags of it are shipped from the country each year.

While the coffee trees are young and do not shade the ground completely, cotton is grown between the rows of trees. In the Western Hemisphere, Brazil, with its two cotton areas, is second only to the United States in the growing of cotton.

Iron ore, manganese, and industrial diamonds are mined in the Brazilian Plateau. The iron deposits are large. But Brazil has little coal. A great steel plant has been built between Rio de Janeiro and São Paulo. Most of Brazil's iron ore, however, is exported because of the lack of good coal to smelt it at home.

Industrial diamonds are used in cutting tools. They lack the brilliance required for gem stones. Brazil supplies many of the world's industrial diamonds. The rest come from Africa.

Living in the cities

Rio de Janeiro is somewhat larger than Philadelphia. It has one of the world's most beautiful harbors. Mountains and hilly islands rise from the sea, and sandy beaches stretch along the shore. Hills have been cut

Brazilian Government Trade Bureau

This modern government building is in Brasília, the new capital of Brazil. The city is in the shape of an airplane, and its modern buildings were designed by Brazil's best architects. It is six hundred miles from Rio de Janeiro, which was the capital city before 1960.

down, and swamps filled in to make room for the city. Modern apartments and hotels line the water front. A blue harbor, green hills and mountains, yellow sands, and white buildings make the city a never-to-be-forgotten sight. Old palaces are a reminder of the days when Brazil had an emperor.

Because the city has no more room in which to grow, the Brazilian government decided it needed a new capital. Brasília, the new capital city, is 600 miles inland, in the Central Highlands. Brasília was built according to a plan selected by an international jury. The plan selected was one among many submitted by famous architects and city planners. The city is one of the beautiful capital cities of the world.

São Paulo is on the Brazilian Highlands, above its port of Santos. São Paulo, which is the center of Brazil's manufacturing, is one of the fastest-growing cities in the world. It is also near the great farming regions. Many foreign businesses have Brazilian headquarters here. Skyscraper after skyscraper has been built and suburb after suburb added.

BRAZIL'S FUTURE

Brazil, which depends in large part on the coffee trade, finds the United States its best customer. Brazil, in turn, buys our manufactured goods. Trade between the two countries is large. In terms of dollar value, we import more from Brazil than from any other South American nation.

Brazil is now beginning to develop its vast resources. New farm lands are being cleared. New dams and power plants are being built. New roads and railroads are being constructed. New airports enable airplanes to reach the back country. Brazil is seeking immigrants from Europe and from Asia. In Brazil, the color of a person's skin does not matter. Everyone is accepted for what he is. Brazil is developing into a major power. It still has half a continent to open. In every way Brazil is on the move.

Do you know—

1. What are Brazil's four natural regions?
2. What are Brazil's chief products?
3. Why did Brazil build a new capital?

6. OUR TIES WITH LATIN AMERICA

The people of the United States have many ties with Latin America. In 1889, in Washington, D.C., representatives of all of the Latin-American republics met with representatives of the United States. At this conference the Pan American Union was organized. The purpose of the union was to promote trade among the member nations.

Since the organization of the Pan American Union many conferences have been held in various Latin-American cities. The Pan American Union is now a part of the new Organization of American States (OAS), created in 1948 to deal with problems of peace and defense in the New World. It has its headquarters in Washington, D. C.

By building the Panama Canal, the United States made it possible for some countries of Latin America to market their products more easily. The canal brought us closer to Latin America, too. From the lands to the south we import many minerals and foods, and they buy manufactured goods from us.

There is a cultural exchange also between the United States and Latin America. We enjoy Latin-American dances, art, music, and books. Students from both regions study in each other's universities.

Latin America is a very large region. Many of its people suffer from poverty. Until the natural resources are developed and used for the good of all, most of the people will remain poor.

In 1961 the United States established a plan called the Alliance for Progress. Under this plan our government promised money to the Latin-American nations which would first take steps to help themselves. The Alliance for Progress has brought hope for a brighter future to our southern neighbors.

Words and Terms to Remember

Creole
pampas
quinoa
llanos
mestizo
gaucho
vanadium
fazenda
quebracho
buffer state
petitgrain
yerba mate

A Matching Game

Number a paper from 1 through 12. After each number write the word or term from the list above which matches the definition.

1. A Brazilian coffee plantation
2. A tall plant that produces seeds used as food
3. A metal used to make steel tougher and harder
4. A person born in the New World of Spanish parents
5. Grassy plains in northern South America
6. A small nation set up between two large ones to stop border disputes
7. The treeless plains of Argentina
8. An oil made from orange leaves
9. A tree whose bark yields an extract used in tanning leather
10. A person of mixed Spanish or Portuguese and Indian ancestry
11. A South American shrub and the tea made from its leaves
12. A South American cowboy living on the pampas

TO HELP YOU LEARN

Finding the Facts

1. Why are the countries south of our border called Latin America?
2. Into what two large regions may Latin America be divided? Describe each region.
3. Who were the conquistadores? Tell the story of one of them.
4. Why were Negroes brought as workers to certain parts of Latin America?
5. How did the early Spanish and Portuguese settlers in Latin America differ from the early English settlers in North America?
6. Why is much of the land in Mexico hard to farm? What crops are raised there?
7. Why has Mexico been unable to develop manufacturing on a large scale?
8. How does the Panama Canal benefit the United States?
9. What does Venezuela do with the money earned from the sale of its minerals?
10. How does Colombia differ from other coffee-growing lands of South America?
11. What is the climate of Quito, Ecuador, like? How do you explain this?
12. Where were white potatoes first grown? Why are they often called Irish potatoes?
13. How did Bolivia become a landlocked country? How does Bolivia export its products?
14. How do most of the people in northern Chile earn a living? In central Chile?
15. What are the chief exports of Argentina? Where are most of these exports sent?
16. What is the chief industry of Uruguay?
17. What has the government of Paraguay been doing to overcome the country's handicaps?
18. What are Brazil's chief crops? Its chief minerals?
19. What was the original purpose of the Pan American Union? Of what organization is it a part today?
20. Give three examples of cultural exchanges between our country and Latin America.

Using Maps

1. On the map on page 182 find the Latin-American nation that is farthest north. What is the capital? How much of this country is mountainous? How much is plateau? How much is plains?
2. On the same map locate the independent nations of Central America. Which country has a coast only on the Pacific? What is the capital of each nation?
3. On the map on page 193 locate the independent nations in the West Indies.
4. Name the countries that are served by the Amazon River and its many tributaries. Through what country does the main stream of the Amazon flow?
5. What countries of South America consist largely of highlands or mountains? Which countries have large plateau regions? Where are plains found?
6. Look at the industrial areas maps of Latin America, pages 193 and 202. How does the amount of industry of Latin America compare with western Europe (see the map, page 125)? For Latin America to have more manufacturing what does it need: more people? well-trained people? or more raw materials?
7. Study the map of world trade on page 215, and name the most important exports of Latin America. What are the major imports? What are Latin America's exports valued at? Its imports?

Making Geography Real

When many of the leading exports of two nations are alike, these nations are said to be rivals in trade. That is, they are competing for customers in the world market. When the chief exports of two nations are, for the most part, different, we say these nations are complementary in trade relations. Instead of being rivals for trade, they benefit by exchanging products.

Because the countries of Middle America and much of South America lie in the tropics, those countries are not rivals of the United States in trade. Tropical Brazil, for example, finds a huge market for its coffee in the United States. Argentina, on the other hand, with a climate much like that of the United States, grows and exports many of the same products that we do. Corn, wheat, and beef cattle are some of these products.

Study the world-trade map of Latin America on page 215 and answer these questions.

1. Why is Brazil said to be complementary to the United States in trade?
2. With which country are we most clearly rivals in trade on the world market?
3. What other countries in Latin America are rivals in trade with the United States? Which are complementary to us in trade?

Interesting Things to Do

1. Imagine that you are taking a trip along the Pan-American Highway, beginning at the Rio Grande and going southward. Keep a diary of the trip, telling about the countries, the scenery, and the products.
2. Many cities of Latin America are built at high elevations. Make a list of the capitals of Latin America and find the elevation of each city. You will find this information in an encyclopedia, an almanac, or an atlas. Underline the name of each city that you find to be one mile or more above sea level. Is any state capital in the United States as high as this or higher?
3. Make a display of products that we import from Latin America. In some cases you can have the actual products in your exhibit. Other products may be represented by pictures. Label each product or picture with the names of the countries that export it.
4. Invite to your class one or more persons who have toured or lived in Latin America. Ask them to talk about life in Latin America and show souvenirs from the region.
5. If any members of your class have stamp collections, invite them to bring in their Latin-American stamps. Prepare an exhibit in which each stamp is identified as to country, person, or event being honored.

Things to Think About

1. Nearly every country can learn something from its neighbors. What nation of Latin America is setting a useful example for its neighbors? What is it doing that other countries might profitably copy?
2. The countries of Central America were once united under a single government. Would they be better off today if they had remained united? What advantages would there be in trade? In defense? In building highways and developing resources?

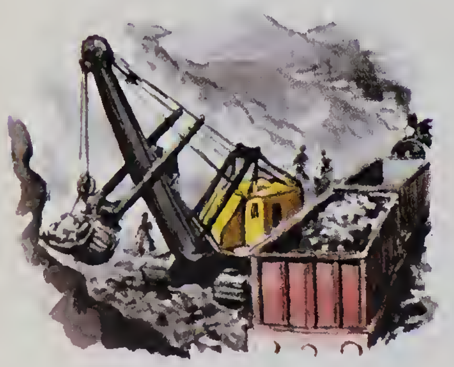
Making Charts

1. For Unit 3 you made a chart showing the countries, capitals, and population densities of western Europe. Make a similar chart for the nations of Latin America.
2. Make a chart of the products of the nations of Latin America. Use the information in your textbook and in reference books. Some countries will have few products, while others will be represented in all four columns. Arrange the countries in alphabetical order, beginning with Argentina.

Country	Factory products	Forest products	Minerals	Farm products

Wheat growing
in the Ukraine

Making electricity
in the Donets Basin



Mining iron ore
in the Ural Mountains

Cotton growing in
Soviet Central Asia

5.

The Soviet Lands

IN THE summer of 1955 many newspapers carried accounts of the activities of two groups of people who crossed the Atlantic Ocean. One group traveled west to the United States. The other went east from the United States to the Union of Soviet Socialist Republics. In each of the groups there were sunburned farmers who had been at work in their fields during the planting season. In each group there were also officials. Who were these men? Why did the newspapers of two continents give daily reports of their activities?

The two groups were traveling across the Atlantic because an Iowa newspaper man had had an idea. Wouldn't it be a good thing, he had asked, if farmers from the Union of Soviet Socialist Republics could visit the United States to see our farmers at work?

The idea was quickly adopted by the Russians. It was also decided that farmers from the United States should pay the Union of Soviet Socialist Republics a visit at the same time. Now the Russian farmers and the farm managers were on their way to Iowa. And officials and farmers from the United States were on their way to the Union of Soviet Socialist Republics.

The Russians visited the fields of tall corn, fine pastures, and dairy farms of our prosperous state of Iowa, in the fertile Mississippi Valley. They saw men and machines at work on farms. Some of the Russians traveled north to Minnesota to visit its great wheat fields and dairy farms. Others went to western Nebraska to look at the cattle ranches there.

The Russian travelers then crossed the Great Plains and Rocky Mountains to the Pacific coast. In California they saw the great vineyards near Fresno. Farther south, they visited California's large cotton fields and dairy farms.

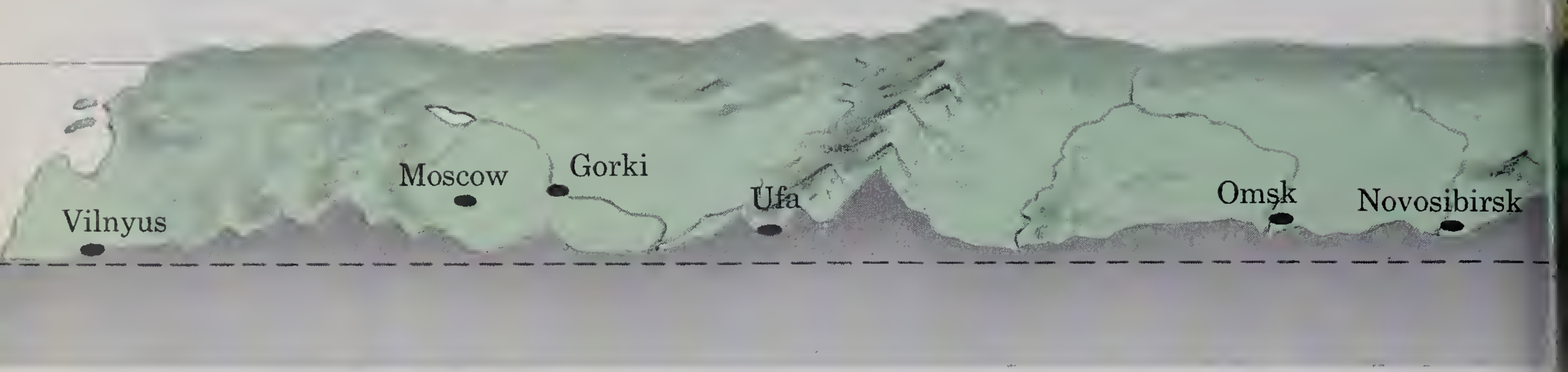
The farmers from the United States went first to the Ukraine. This is the most prosperous farming region in the Union of Soviet Socialist Republics. There they saw great fields of corn and wheat along the Dnieper River. They were surprised to see fields of yellow sunflowers, raised for their seed.

As the farmers traveled farther east, they saw cattle ranches near the Caspian Sea. Across the Ural Mountains, in the warm region not far from the Aral Sea, they visited cotton fields.

The visiting farmers of both countries found much that reminded them of home. Why was this so? The reason is that the land, the crops, and the farm animals are much alike in certain areas of the United States and of the U.S.S.R. The farming regions of these areas have almost the same kind of climate and soil. Both countries have large farms, and use modern machinery to plant and harvest their crops.

Suppose that we as a class could visit the Union of Soviet Socialist Republics. What would we want to see? If we were to plan such a trip, we would need to learn the answers to such questions as:

1. What is the U.S.S.R. like?
2. What is the European part of the U.S.S.R. like?
3. What is the Asiatic part of the U.S.S.R. like?
4. How do people live under communism in the U.S.S.R.?



UNION OF SOVI

1. WHAT THE U.S.S.R. IS LIKE

One good way to learn about a country is to visit it. Another is to read a travel book about it. Let us follow the adventures of a class who will visit the U.S.S.R.

Before starting its trip, the class has decided to learn something about the land, the people, and their history. Miss Robinson, the teacher, begins the discussion.

"Let us consider the different names used for the country we are to visit. Russia is the old name of this nation. Many persons still refer to the country as Russia. But today its official name is the Union of Soviet Socialist Republics. This long name is sometimes shortened to the U.S.S.R., just as we often refer to our country as the U.S.A. Another short name for the nation is the Soviet Union."

"What does *soviet* mean?" Janet asks.

"Soviet is a Russian word meaning council," Miss Robinson answers. "A soviet is really a committee. Each village and town in the U.S.S.R. is governed by a soviet, or committee, of representatives. Each of the soviets chooses the members who are to go to larger soviet congresses, or meetings. The highest governing group in the nation is the Supreme Soviet, which meets in Moscow.

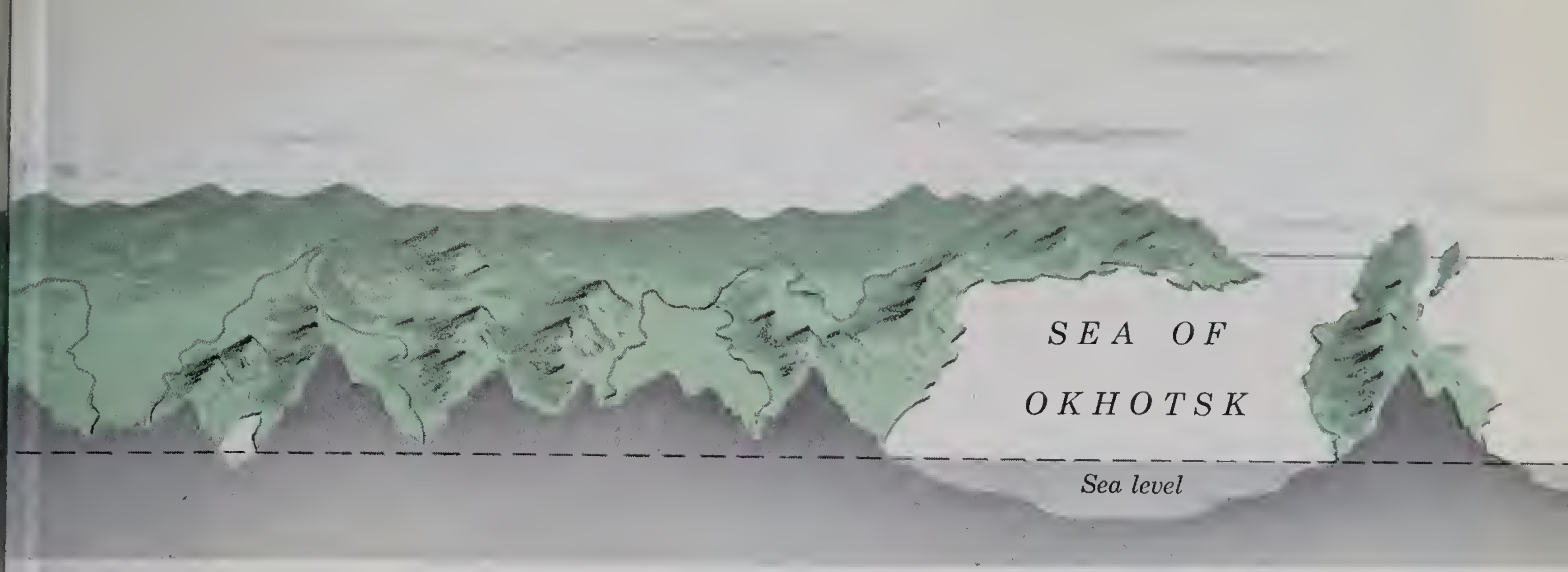
"The U.S.S.R. is made up of states, called republics. The largest and most important of these is the Russian Soviet Federated Socialist Republic, or the R.S.F.S.R. This republic extends from the Baltic Sea across eastern Europe and northern Asia to the Pacific.

"Another leading republic is the Ukrainian Soviet Socialist Republic. This republic, often called simply the Ukraine, was the first to be visited by the farmers from the United States.

"Now let us discuss the size of the U.S.S.R.," Miss Robinson suggests. "Does anyone know how large it is?"

"Yes," James volunteers. "It is the largest country in the world."

"Right," Miss Robinson replies. "It covers nearly one sixth of the world's land surface. If we look at the map (page 228), we will see that the U.S.S.R. reaches from the Baltic Sea to the Pacific Ocean and from the Arctic Ocean almost to the Mediterranean Sea."



SOCIALIST REPUBLICS

"This means," says Alice, "that the people of one part of the country are having lunch, while the people of another part are in bed!"

"That is true," Miss Robinson agrees. "And now I shall name some committees. One committee will make a study of the geography of the Soviet Union. A second committee will learn about the peoples who live in this vast nation. The third committee will learn about its history. The fourth committee will chart the route of our travels in the U.S.S.R. Each committee will choose its chairman and plan the work of its members. We will allow two weeks for study."

Two weeks later, when the committees had completed their study, each of them made a report. Here is the information they gave to the class.

A NATION ON TWO CONTINENTS

The Union of Soviet Socialist Republics covers a large part of both Europe and Asia. One part of the Soviet Union occupies all of eastern Europe. It is sometimes called Soviet Europe. Between Europe and Asia stretch the Ural Mountains (see the map, page 228). The part of the U.S.S.R. that lies east of the Urals is often called Soviet Asia.

Many kinds of climate

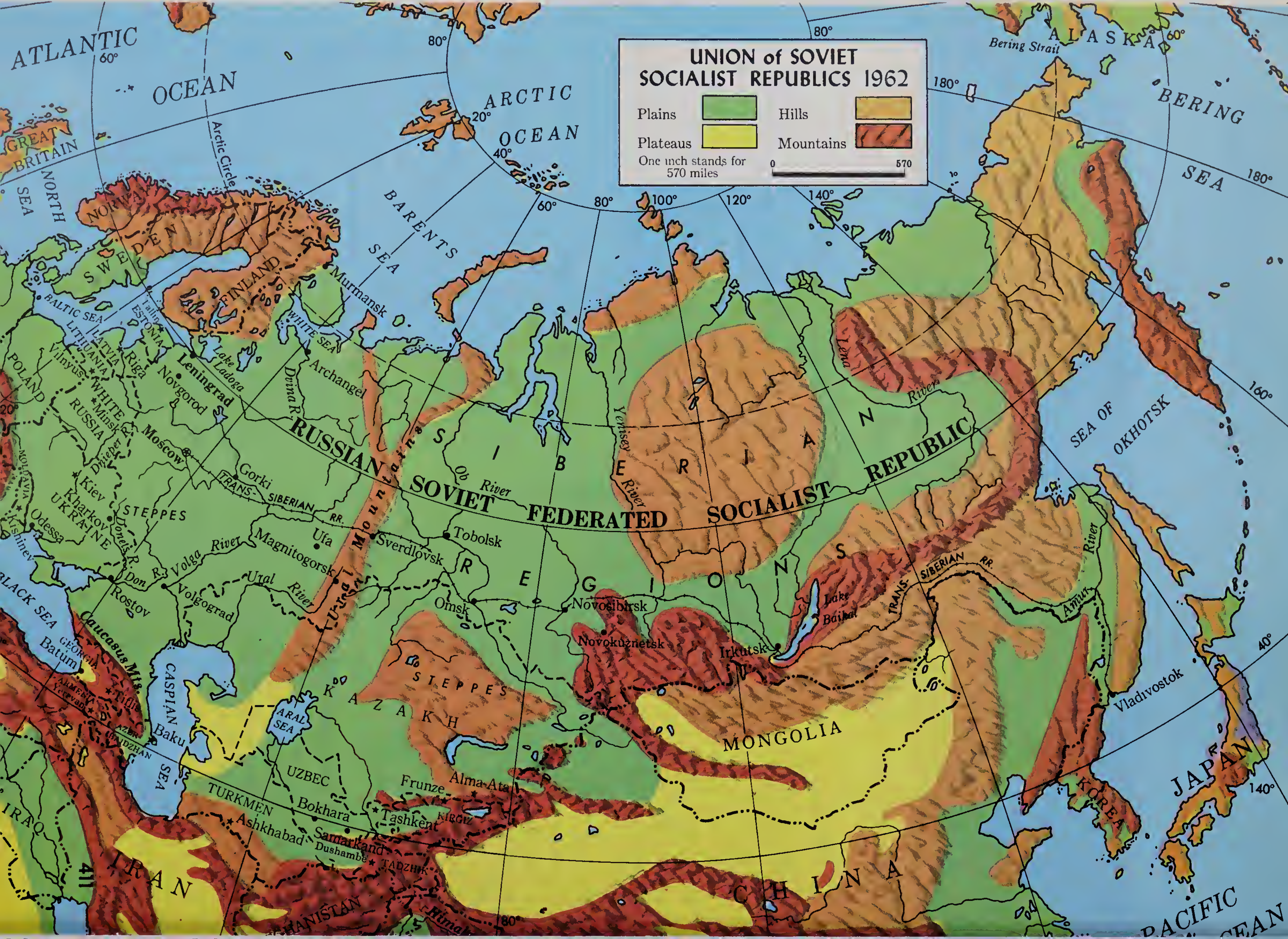
The U.S.S.R. covers so large an area that every kind of climate, except a tropical climate, is found somewhere within its borders. Some areas are much like Canada and the different parts of the United States. To the east of the Black Sea, one region of the Soviet Union has a very warm climate, where subtropical crops grow.

Six natural regions

The U.S.S.R. has six large natural regions. Each region has its own special kind of vegetation.

At the north is a *tundra,* or region of level, treeless plains, which extends all along the shore of the Arctic Ocean. This region resembles the tundra of the northern arctic regions of Alaska and Canada. It is covered with snow in winter and is marshy in summer. Along the coast there are native peoples who live somewhat like the Eskimos of North America. From the few cities of this region lumber is shipped during the summer. When the arctic coasts are free of ice, the lumber comes from forests to the south.

South of the tundra is a great forest region called the *taiga.* The taiga extends from


UNION of SOVIET SOCIALIST REPUBLICS 1962
Plains
Plateaus
Hills
Mountains
One inch stands for 570 miles
0
570
ATLANTIC OCEAN
ARCTIC OCEAN
BARENTS SEA
BERING SEA
SEA OF OKHOTSK
NORTH SEA
BALTIC SEA
WHITE SEA
BLACK SEA
CASPIAN SEA
ARAL SEA
Bering Strait
Arctic Circle
ALASKA
GREAT BRITAIN
NORWAY
SWEDEN
FINLAND
ESTONIA
LATVIA
LITHUANIA
WHITE RUSSIA
UKRAINE
MOLDAVIA
POLAND
GEORGIA
ARMENIA
AZERBAIDZHAN
TURKMEN
UZBEC
KIRGIZ
TADZHIK
KAZAKH
STEPPES
RUSSIAN SOVIET FEDERATED SOCIALIST REPUBLIC
SIBERIAN REGIONS
MONGOLIA
CHINA
KOREA
JAPAN
IRAN
IRAQ
AFGHANISTAN
PACIFIC OCEAN
Ural Mountains
Caucasus Mts.
Himalaya
Murmansk
Archangel
Leningrad
Lake Ladoga
Tallinn
Riga
Vilnyus
Minsk
Novgorod
Moscow
Gorki
Kiev
Kharkov
Odessa
Kishinev
Rostov
Volgograd
Magnitogorsk
Ufa
Sverdlovsk
Tobolsk
Omsk
Novosibirsk
Novokuznetsk
Irkutsk
Lake Baikal
Vladivostok
Batum
Tiflis
Yerevan
Baku
Ashkhabad
Bokhara
Samarkand
Dushambe
Tashkent
Frunze
Alma-Ata
Dvina R.
Dnieper R.
Donets R.
Don R.
Volga River
Ural River
Ob River
Yenisey River
Lena River
Amur River
TRANS-SIBERIAN RR.
60°
80°
20°
40°
100°
120°
140°
160°
180°

the border with Finland across the U.S.S.R. to the Pacific Ocean. The U.S.S.R. is said to contain about one third of all the forests in the world. Few people live in the northern part of the taiga. It is hard to make a living there.

To the south, where the summers are longer, the forests are less thick. In this region the forests are broken by wide, grassy areas, or *steppes*. Thus, the third great natural region is called the forest steppes. Moscow lies in this region. The grassy, open spaces are used for farms.

The southern part of Soviet Europe is a steppe region. On the steppes, which are much like our prairies in the Missouri River valley, trees grow only along the streams. The steppes reach the Black Sea and include the western part of Soviet Asia, or Siberia.

South of Siberia, near the Caspian Sea and the Aral Sea, is an area that receives little rain. This part of Soviet Central Asia is a dry-land area.

East of the Black Sea is a warm region in which grow subtropical trees and plants. This region is warm because it is protected from the cold winter winds by the high Caucasus Mountains.

The land surface

Most of the U.S.S.R. is a vast plain stretching from the Baltic Sea and the Black Sea eastward to the Pacific. The plain is broken by the low Ural Mountains, extending from north to south.

Great rivers flow across the European plain. The Volga River is the largest river in the U.S.S.R. and one of the world's great river systems. Other large rivers in Soviet Europe are the Don, the Donets, the Dnieper, and the Dvina. Before railroads were built, the rivers were the chief highways. Look at the map to see how they and their tributaries flow out in all directions. Moscow, the largest city, can be reached by river boats from nearly all parts of the plain.

Western Siberia is also a vast plain. This plain extends eastward for many hundreds of miles from the low Ural Mountains. The Ob, the Yenesei, and other Siberian rivers flow northward across it and empty into the Arctic Ocean. The northern part of the Siberian plain is covered by forests, but the southern part is steppe land. Eastward, in the lands drained by the Lena and the Amur, are hills and low mountains.

The chief mountains of the U.S.S.R. are the Urals and the Caucasus Mountains. The Urals extend for 1600 miles in a north and south direction from the Arctic Ocean to the Aral Sea. They are low mountains, ranging from 1000 feet to about 6000 feet above sea level. The Caucasus Mountains, which are about 700 miles in length, are a very lofty range. Some of these peaks rise more than 18,000 feet above sea level.

Most of the other hilly and mountainous land is in eastern Siberia. It lies to the north of Mongolia and China (see the map, page 228). Siberia was once considered waste land, but the Soviet government is now interested in developing its forest and mineral resources.

PEOPLES OF THE U.S.S.R.

More than 200,000,000 people live in the U.S.S.R. today. However, the nation covers so large an area that nowhere, except in a few large cities, is it densely populated.

European peoples

More than half the people of the U.S.S.R. live in the Russian Soviet Federated Socialist Republic (see the map, page 228). The European part of this republic was the homeland of the Russians. Russia as a nation grew up around Moscow. It gradually extended westward in Europe and eastward into Asia.

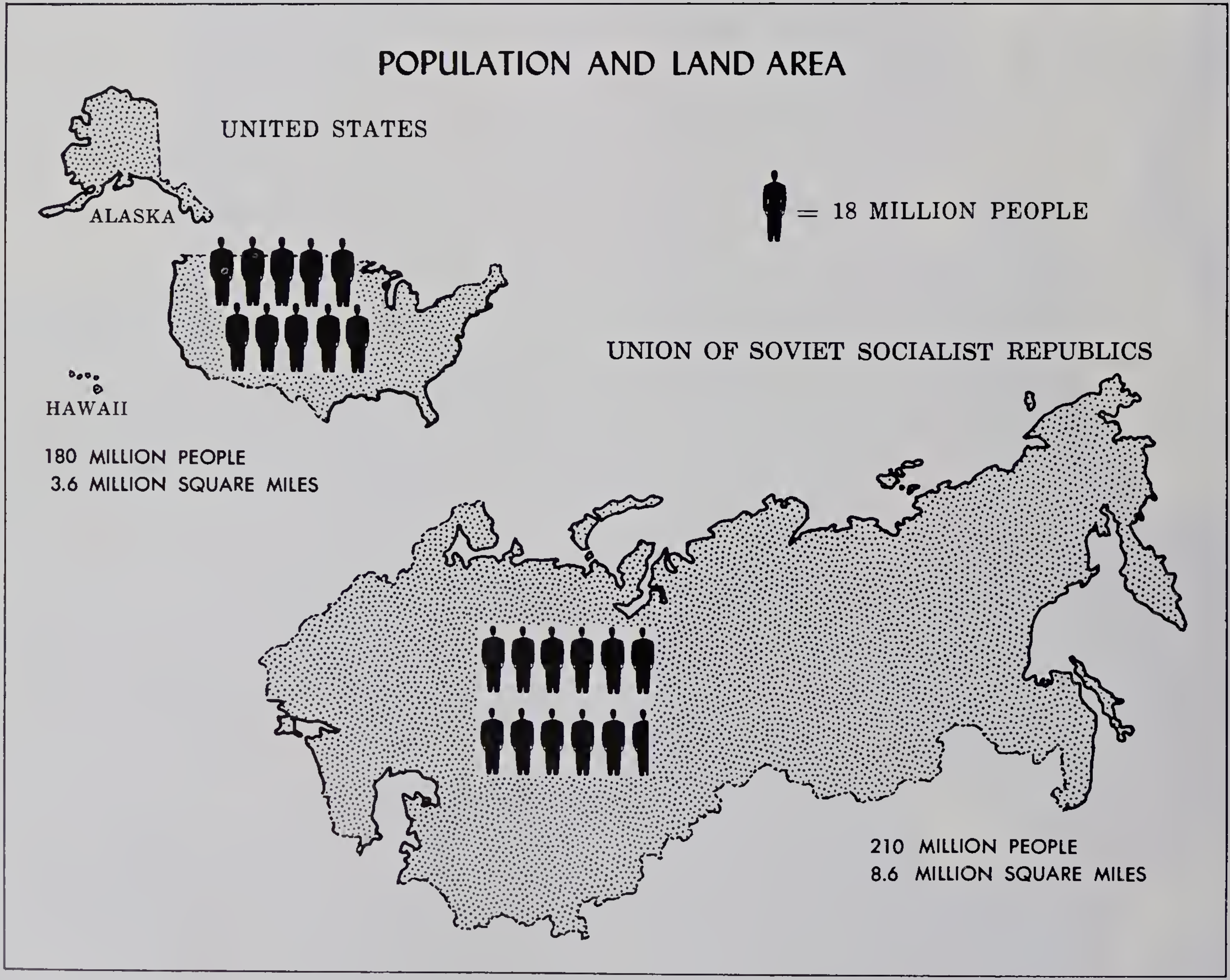
Most of the people of the R.S.F.S.R are Caucasians, or members of the white race. They are Slavs, and they speak a Slavic language. The people of Poland, Bulgaria, Czechoslovakia, and Yugoslavia are Slavs also, and their languages are Slavic. The other great language families of Europe are the Germanic languages and the Latin languages. English, as we have learned, is a Germanic language. Our alphabet, which is the same as that used in western Europe, is based on the Latin alphabet. The Russian alphabet is much like the Greek one.

Soviet Europe also contains Ukrainians, Latvians, Estonians, Lithuanians, and Armenians. On the map, on page 228, find the regions where these peoples live.

Asiatic peoples

Soviet Central Asia is inhabited by Uzbeks, a Turkish people, and by Tatars. The Tatars belong to the Mongolian race. Other Mongolian peoples live in eastern Siberia. In

How do the population and land area of Soviet Russia compare with those of the United States?



The teacher is helping the children with their school work in this class in the Soviet Union. Children must attend school there for at least eight years.

Combine

the Far East and on the tundras live people who resemble the Eskimos of Alaska and Canada.

The Russian people have been moving east into Siberia since the 1600's. Many Siberian towns and farms were started about the same time that the first settlements were made in the United States. The Russian frontier was toward the East, in Siberia, just as ours in the United States was toward the West. Today Siberia has about 30,000,000 people.

Many different languages

About 170 different languages are spoken in the Soviet Union. Russian, of course, is used by the largest number of people. Each of ten other languages is spoken by over 1,000,000 people. Some languages are used by only small groups. In the Soviet schools today Russian is taught to all children. But in some areas they may use their home language when they are not in school.

Different ways of living

The many peoples of the U.S.S.R. and the vast area that they inhabit are almost a separate world. They live between western Europe and the Oriental nations of China and Japan. The Soviet lands thus lie between nations with a Western civilization and the Far East, with its Oriental ways of living. This was so in the past, when Russia was ruled by emperors, called tsars. It is so today under the Soviet government.

RUSSIA'S PAST

The Eastern Slavs, who were the ancestors of the Russians, began to move westward about 200 years before the Angles and the Saxons invaded Great Britain. They occupied the part of the plain that is now White Russia and eastern Poland. When nomads rode in from northern Siberia and drove them into the forest region around Novgorod, they asked help from a tribe of Northmen in Scandinavia.

The Norse-Slav kingdom

These Northmen, called the Russ, were led by a viking named Rurik. In their long boats they moved up the rivers. Together with the Eastern Slavs they defeated and drove out the invaders. The Northmen set up a kingdom with Novgorod at its center.

By the 900's the Slavs had established a kingdom at Kiev on the Dnieper River. The rulers of Kiev, known as grand dukes, gradually brought the neighboring Slavs under their control and held back the nomads. They sent traders as far south as Byzantium (now called Istanbul). One of their grand dukes married the daughter of the Greek emperor at Byzantium. The Greeks were Christians. The Russian rulers gave up the heathen religion of the early Russians and established Christianity as their religion.

The Mongols in Russia

Then hordes of Mongolian nomads, called Tatars, began to move into the region again. They were a yellow-skinned warlike people, and they rode across the plain in large numbers. The Tatars were hard fighters, and the Russians were no match for them. For two hundred years armies of Tatars overran Russia, attacking at will and exacting taxes from their victims. Some of the Tatars, however, settled down and married Russians.

Russia independent

After a time the Tatars became weaker. The grand duke of Moscow, Ivan III, decided to throw off the Mongol yoke. Under his leadership the Russians drove the Tatars back toward Asia. Ivan also extended his control over Novgorod. He is known as Ivan the Great because he laid the foundation of the Russian nation.

Not long after this, Ivan IV became the grand duke of Moscow. He was known as Ivan the Terrible because he was a merciless warrior, killing and plundering as he brought villages under his control. He was a stern ruler, too. His word was law to his people. If anyone dared to criticize Ivan or his government, the tsar's officers seized him and cut out his tongue. There was no freedom of speech in Moscow.

Ivan was cruel, but he was wise, too. He curbed the power of the nobles and helped the people. He extended the borders of Russia. He encouraged traders and explorers to move across the Urals into Siberia. He was the first to call himself by the title of tsar.

Expansion to the East

Russia's exploration and trading activities, begun by Ivan IV, continued under other tsars. They sent expeditions farther and farther east until, in 1639, the Russians reached the shores of the Pacific Ocean.

In 1741 Vitus Bering, a Danish captain employed by Russia, found the strait between Asia and North America and reached Alaska. This strait is now called by Bering's name. In time, the Russians established fur-trading posts in Alaska and far down the Pacific coast of what is now the United States. For many years a Russian company held the rights to the fur trade in Alaska. Then, in 1867, as we know, the United States bought Alaska from the Russian government.

Thus for hundreds of years the frontier of the Russians was to the East just as ours was westward. The Russians helped to settle Siberia in much the same way as the people of the United States and Canada settled North America. The Russians are still moving to Siberia. New farms and factories are being formed there. It is still a land for pioneers.

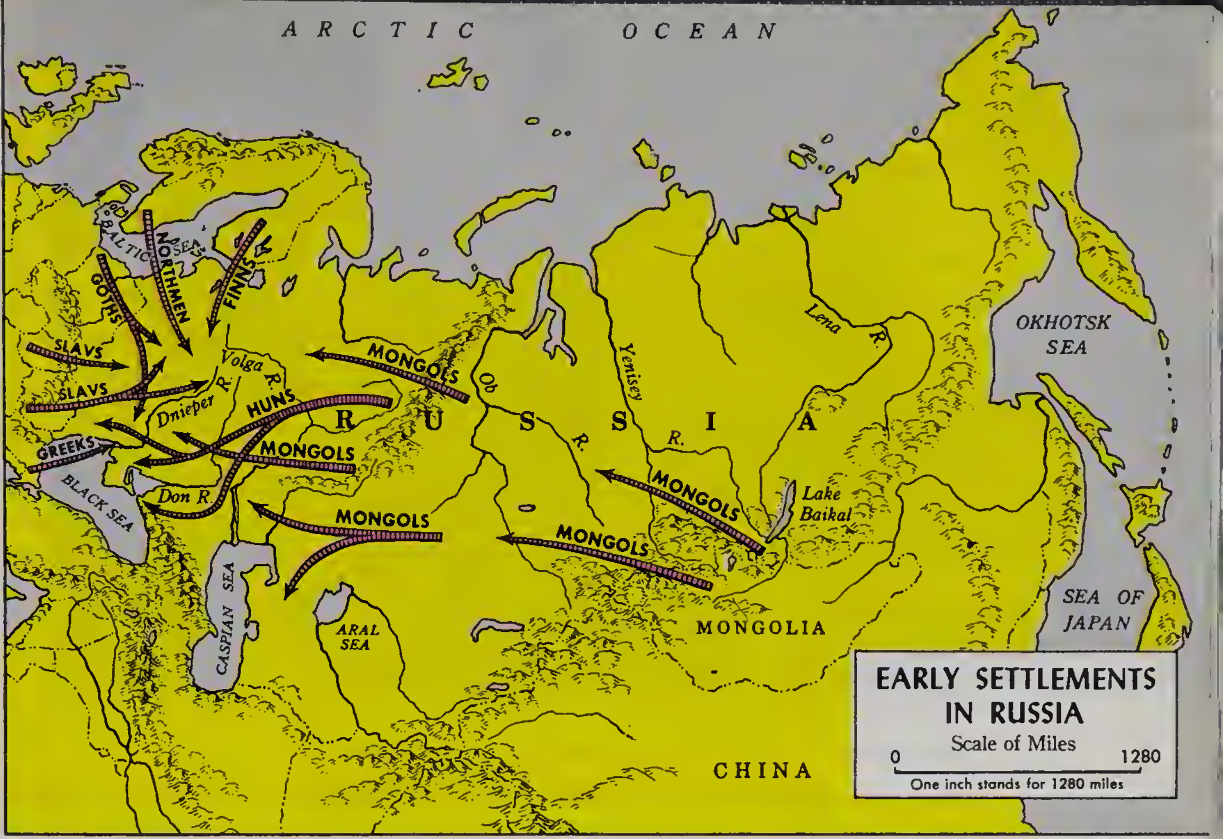
Expansion in Europe

In 1682, the year when William Penn was laying out Philadelphia, a young man named Peter became tsar. He was so wise a leader that historians call him Peter the Great.

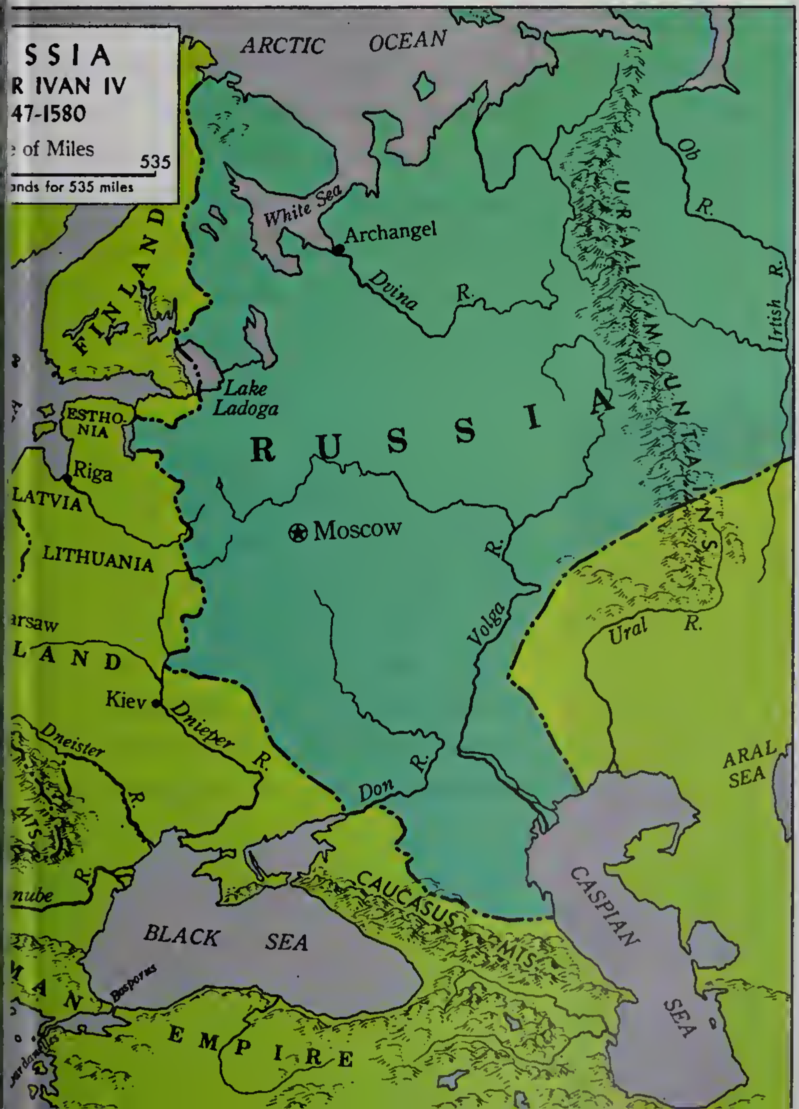
Peter found Russia a backward land. It was sparsely settled and had few contacts with western Europe. It had little trade because it had no port on the Baltic or Black seas.

EARLY RUSSIA

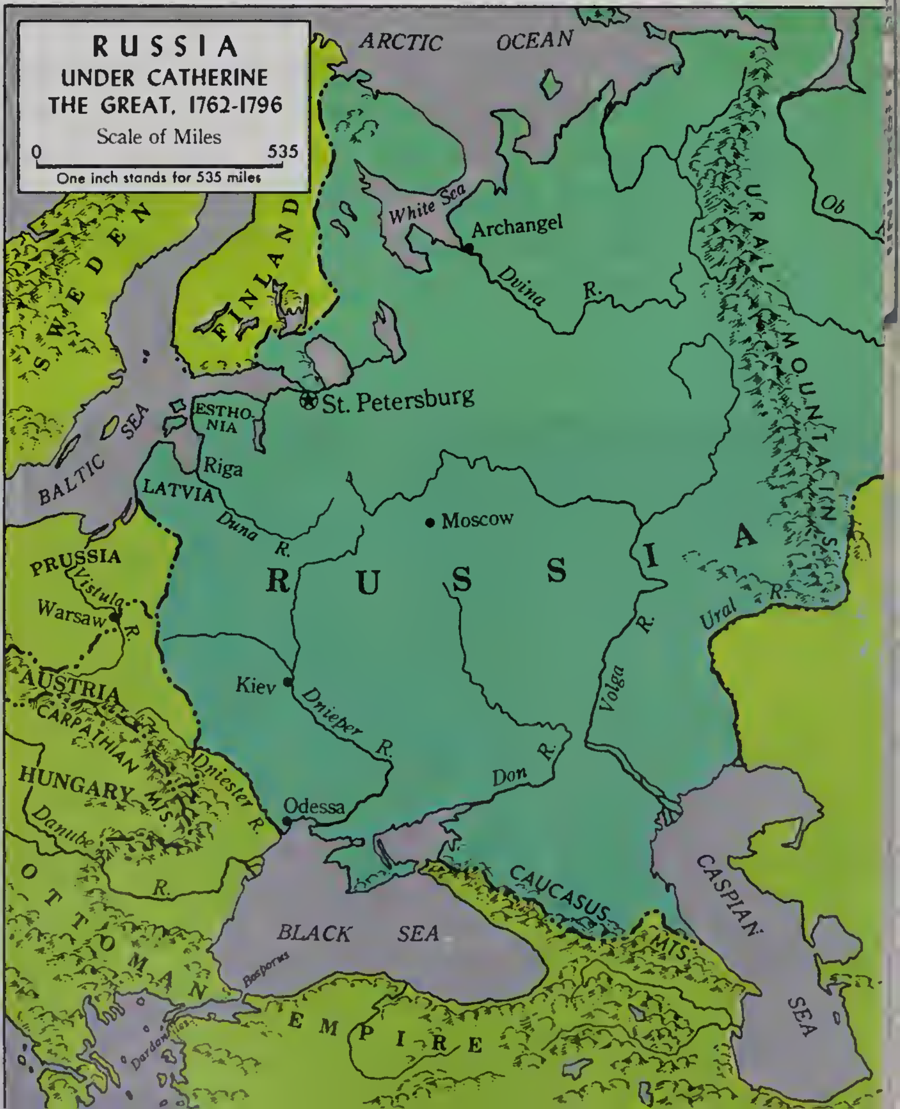
About the same time that the barbarian tribes were sweeping across western Europe, barbarians were also invading the region around Moscow. Some came from the east and overran the area. Then bands of Northmen, called the Russ, came and made settlements at Novgorod. From these Northmen the nation of Russia received its name.


EARLY SETTLEMENTS IN RUSSIA
Scale of Miles
0 1280
One inch stands for 1280 miles

Ivan IV was the tsar who extended Russian territory to the Caspian Sea. What lands bordered Russia on the west and the south? Why did Russia want a warm-water seaport?


SSIA
R IVAN IV
47-1580
of Miles
535
nds for 535 miles

Under Empress Catherine, Russia expanded southward to the shore of the Black Sea and took over part of Poland. By 1800 Russia was the large country shown below.


RUSSIA
UNDER CATHERINE THE GREAT, 1762-1796
Scale of Miles
0 535
One inch stands for 535 miles

Peter had brains, energy, and a strong will. As a young man, he had a hobby of building boats. In order to learn more about boats, he traveled widely—to the Netherlands, to England, and elsewhere. In his travels he saw how backward his nation was. He decided to introduce the manners and customs of western Europe into Russia. He also resolved to make himself an all-powerful ruler. In both of these purposes he succeeded.

The men at Peter's court were more like Asiatics than Europeans in their manners and dress. Peter wanted them to look like Europeans rather than Asiatics. On one occasion he assembled the chief men of Russia and with his own hands cut off their long beards. After that everyone who insisted on wearing a beard had to pay a heavy fine. He ordered that the long Asiatic robes worn by men should be replaced with European-style suits. Peter founded schools to train engineers, sailors, and army officers. He brought in skilled factory workers from abroad.

Russia, as Peter inherited it, was almost cut off from the open sea. He knew that if the nation was to develop trade with western Europe it would have to have ports on the Black Sea and the Baltic Sea. He called such ports "windows to the west."

At that time Sweden controlled the Baltic Sea, and the Turks controlled the Black Sea area. Even though the realizing of his ambitions meant war, Peter did not hesitate. He attacked Sweden. The war lasted ten years. At first, the Swedes were successful. But Peter fought grimly on, and in the end he defeated the Swedish king. Sweden then *ceded,* or gave up, to Russia a large area on the Baltic Sea. Thus Peter opened a "window to the west."

Peter built a new city on the Neva River at the head of the Gulf of Finland in part of the land taken from Sweden. He called it St. Petersburg. He made St. Petersburg his chief trading port and the capital of Russia. Through it Russia gained western ideas. During Peter's reign other nations realized that Russia was becoming a great power.

Peter's daughter Elizabeth, when she became empress of Russia, also made war on Sweden. Her armies seized most of what is now Finland and added this land to Russia.

Catherine II, a German princess who married Peter III, became empress of Russia after the death of her husband. During her reign the Russian armies defeated the Turks. As a result, the Turks ceded to Russia the north shore of the Black Sea. Catherine

Ewing Galloway

This is the summer palace of the tsars which is near Leningrad. This city was built by Peter the Great and was called by his name. After the Russian revolution the name was changed to Leningrad.

This Russian family lives in the Ukraine. Here in this picture note the large sacks of grain alloted to them for their year's work. Part of each crop is taken by the government as a tax.

later seized parts of Poland. Like Peter, she too added "windows" to Russia. For this reason she is often called Catherine the Great.

Expansion toward the southeast

After Catherine's time, Russia expanded into the edge of Asia, taking in what are now the republics of Georgia and Armenia. Then the tsars sent armies into central Asia and into the dry lands near the Aral Sea. They moved south to the Himalayas.

Thus the tsars reached out in all directions, except to the frozen north. They brought under their rule nearly one sixth of the earth's surface and the many different peoples of these lands. The U.S.S.R. holds these lands today.

The Russian Revolution

World War I brought great changes to the Russian empire. In this war Russia fought on the side of Great Britain, France, and the United States. But the Russian armies began to lose battles and to retreat. They were no match for the Germans. Tsar Nicholas II was not a wise ruler. Nor was he able to direct the armies. Furthermore, the winter of 1917 was cold, and millions of people in Russia were hungry because there was a shortage of food. When hunger riots broke out in the capital, the tsar did nothing to help the people. The Russian parliament demanded that the tsar *abdicate,* or give up his throne.

After the tsar abdicated, the parliament set up a republic. But the new republic was short lived. Worker groups, called soviets, were organized under the leadership of Nicolai Lenin. Lenin's followers called themselves *Bolshevists.*

On the night of October 25 the Bolshevists used the troops to seize the government offices. In the morning, when the parliament met, they found the Bolshevists in control.

Thus Russia had two revolutions. The March revolution overthrew the tsar. The October revolution put the Bolshevists in power. They established the U.S.S.R., and they have been in power ever since.

Do you know—

1. How large is the U.S.S.R. in area?
2. What are the U.S.S.R.'s natural regions?
3. What did Peter the Great do for Russia?
4. What was the result of the first Russian revolution? Of the second revolution?

2. WHAT SOVIET EUROPE IS LIKE

After the presentation of the reports on the geography, peoples, and history of the U.S.S.R., the class considers the route to be followed on its visit to Soviet Europe.

OUR ROUTE IN SOVIET EUROPE

The travel committee has prepared a map of the route and posted it on the wall. It is like the map on page 237. Let us follow the route as the committee chairman describes it.

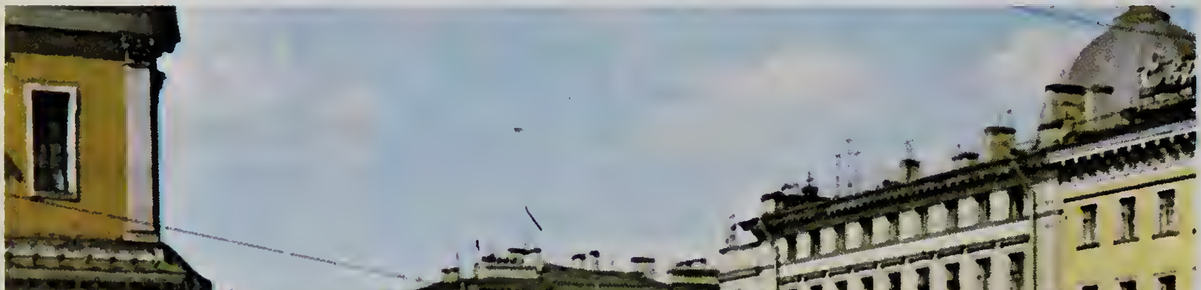
"After flying across the Atlantic," says Fred, as he takes the pointer to show us the route, "our plane will stop at Shannon, Ireland. There it will refuel, and we will fly on to Berlin. From Berlin we will take a plane for Leningrad, a city on the Gulf of Finland. Leningrad was once called St. Petersburg. At that time it was the capital of the Russian empire. Today it is a busy seaport and manufacturing city.

"From Leningrad we will travel south to a village in the Byelorussian Republic, or White Russia, as this republic is often called. The village we will visit is near Vitebsk.

"Our third stop will be Moscow," Fred continues. "Moscow is the capital of the largest republic in the U.S.S.R., and it is also the national capital. We shall stop in Moscow for several days.

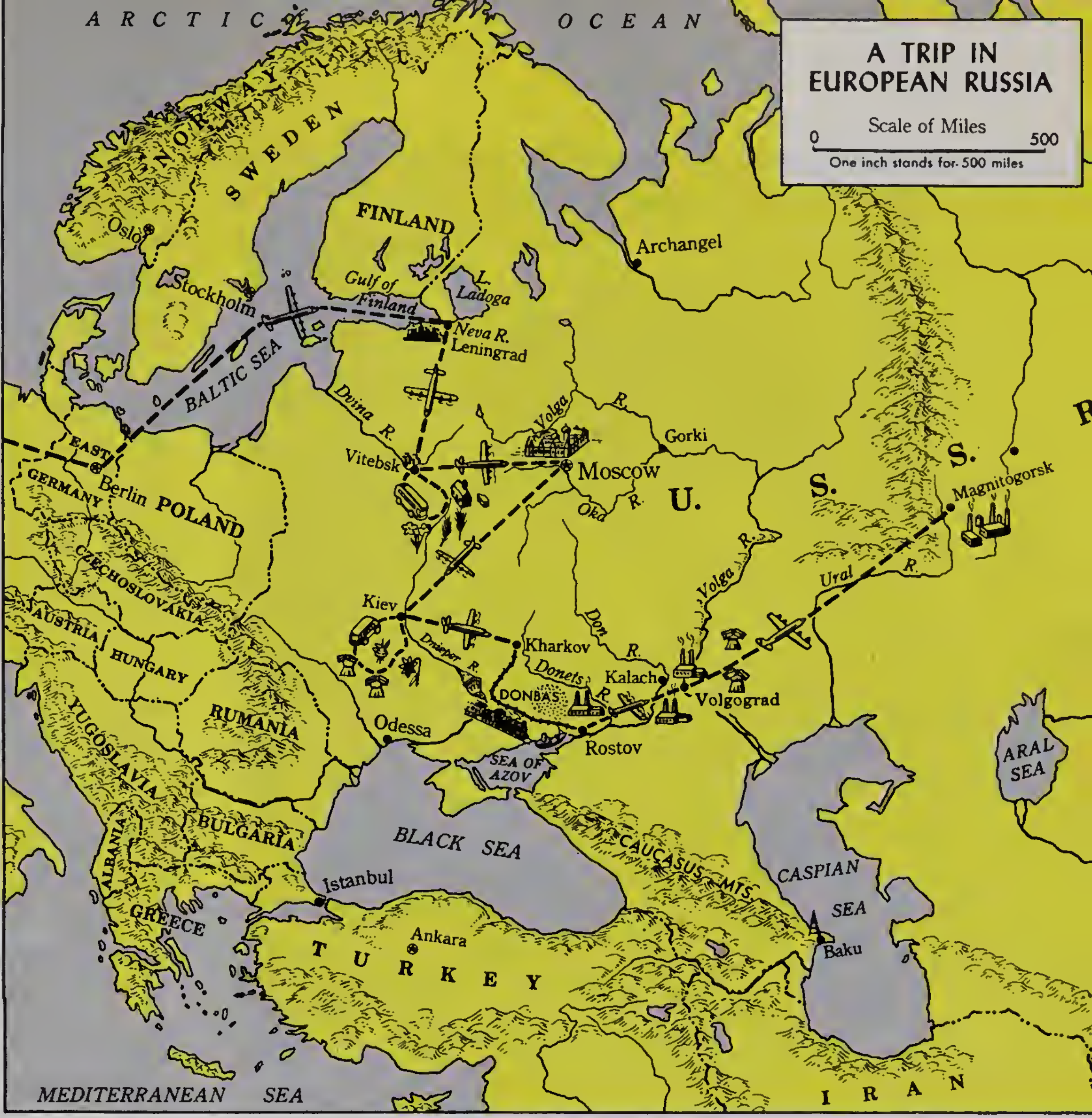
"From Moscow we will fly south and west to Kiev, on the Dnieper River. Kiev is the capital of the Ukrainian Republic. It is an

Dana Brown from FPG



The broad street shown here is Nevsky Prospekt, Leningrad's main street. Notice that only a few automobiles can be seen. Not many Russians earn enough to buy automobiles. Leningrad is the second largest city in Soviet Russia. At what time of year was this picture taken? How can you tell?

This map shows the route through European Russia of the class whose travels you will follow. Use it to find the Russian cities the class visits on the trip. How many miles did the group travel from Berlin to Leningrad? From Moscow to Kiev? From Rostov to Magnitogorsk? What is the largest river that the students fly over?



interesting old city. We will visit a farm near Kiev. The soil of the Ukraine is so fertile and so dark that it is sometimes called the 'black-earth' region.

"Then we will travel south and east to visit the Donets Basin. The Donets Basin is important for its coal, its iron-and-steel mills, and its shipbuilding.

"From the Donets Basin, we will fly east to Volgograd, formerly called Stalingrad. It is on the Volga River and is an important factory city. This will be our first view of the Volga, the largest river in Europe."

Fred moves his pointer to the Ural Mountains. "Our last stop in Soviet Europe will be at the city of Magnitogorsk, in the Urals. Magnitogorsk, which means 'magnet mountain,' is built near a mountain of magnetic iron ore."

The class has followed the route of the trip as Fred pointed it out on the map. Let us trace it, too, on the map above.

OUR TOUR OF SOVIET EUROPE

We have a smooth flight across the Atlantic. We fly first to Berlin. At Berlin we take another plane to Leningrad. On our way to Leningrad we see below us part of the great plain which makes up most of western Europe. See the map on page 122.

Leningrad, a great northern seaport

Our first view of Leningrad shows us that it is a great, flat city with many bridges. In the distance are low, rolling hills, large lakes, fields, and forests. As we draw nearer to the city, we see the Gulf of Finland, on the shores of which Leningrad is built. The docks and piers indicate that the city is an important seaport. Near the piers and in other parts of the city we see smoke pouring from the chimneys of large power plants.

Our Russian guide greets us at the airport. He introduces himself to Miss Robinson and tells us that he is at our service. He takes us to an office where our baggage is checked by Soviet officials. We are soon at our hotel.

"How large is Leningrad?" James asks.

"Leningrad has 2,888,000 people," the guide answers. "It is about the size of your Los Angeles, the third city in your nation. The Neva River, on which it is built, breaks into many branches as it flows toward the sea. For this reason, the city has many bridges. In fact, there are over 500 bridges."

"Where does the Neva flow from?" asks Helen.

"From Lake Ladoga, which is about forty miles from Leningrad. Lake Ladoga is the largest lake in Europe. It is almost as large as your Lake Ontario."

Before we start a tour of the city, we think about its history. We remember that this is part of the region that Peter the Great took from Sweden. Here Peter ordered a city built at the point where the Neva River flows into the Gulf of Finland. The land on which the city was built was very marshy. Piles, or poles, had to be driven into the ground to support the heavy buildings. Stone had to be brought in on ships. It took many years to build St. Petersburg. After the revolution that followed Russia's defeat in World War I, the city was renamed Petrograd. Petrograd means "Peter's city." Later, it was named Leningrad, to honor Lenin.

In Leningrad we take a bus trip. Our first stop is at the water's edge. Here our guide shows us shipyards. Ships from many parts of the world are at the docks. Here also vessels are built for the Soviet Union.

On our tour of Leningrad we see many factories. In these factories many different kinds of products are made. There are factories that make cloth and others that make clothing. Some manufacture heavy machinery. Many factories use wood as a raw material to produce lumber or paper.

We visit a palace which was once the home of Peter the Great. Fountains are playing before the palace. As we wander through the many rooms with their rich furnishings and fine paintings, we can imagine how proud Peter was of this splendid palace. After the Russian Revolution the Soviet government made the palace a showplace for tourists.

In the evening we attend the theater, where we see a *ballet*. A ballet is a dance that tells a story. Men and women act out the story as they dance to music. The ballet that we see is called "Swan Lake." It has been set to music written by the Russian composer, Tchaikovsky.

"Russia has been famous for its ballet for many years," our guide explains. "Every city has its ballet. The best dancers hope sometime to be good enough to dance in the ballet here or in Moscow. Famous ballet dancers were once honored by the tsars. Now they are honored by the leaders of the Soviet Union. Important foreign visitors are taken to see the ballet by high Soviet officials."

As we wait for our plane for the south, we see many planes arriving and departing. During our tour of Leningrad we saw ships of many kinds in the harbor. We also saw large railroad stations. Leningrad is served by many kinds of transportation.

A farm village in White Russia

Our airplane flight takes us over woods, lakes, and fields. This is forest and farm country. The many lakes remind us of parts of northern United States, of Canada, and of the Scandinavian lands.

Again a guide meets us at the airport and leads us to the bus that is to take us to a farm village. After a short ride we see a low row of houses.

The houses which line the street of the village are built of wood. The roofs are shingled or covered with tar paper. Great piles of wood to be used for cooking and for winter heating are stacked behind the houses. Beyond the fields we can see great forests. Here the farmers had to clear the land of trees to plant crops. They built houses from the timber of these forest lands.

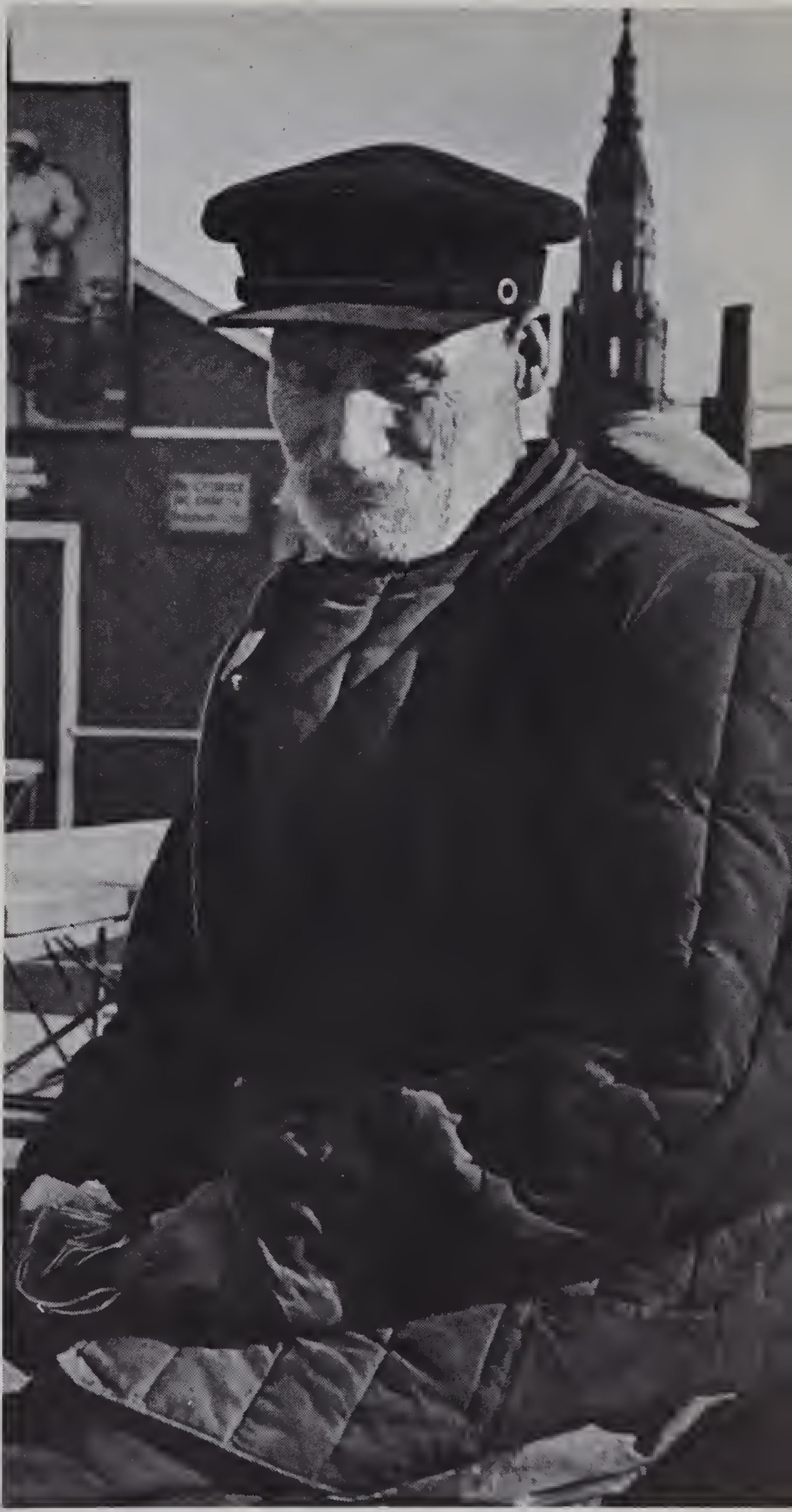
We walk down the street. Through an open door we see a tall, tile stove.

"In winter," the guide tells us, "the stove heats the house. The oven in the lower part of the stove is used for baking. Out of it come great loaves of the dark-rye bread which is one of our main foods. In some homes kettles of water are kept simmering constantly on top of the stove. Russians are fond of tea and keep hot water in readiness to make tea several times daily. In other homes *samovars* are used."

"What is a samovar?" Janet asks.

"A samovar is an urn used for heating water," replies the guide. "A charcoal fire keeps the pipes of the samovar hot. Russian housewives are proud of their samovars. Some samovars have been in the family for many generations."

We stop for tea in one of the homes. Our hostess serves tea in glasses. With the tea we have a piece of freshly baked rye bread. The Russians have been tea drinkers for



FPG

This old Russian farmer is resting after a day's work at a market in the Ukraine. Notice the warm padded jacket that he is wearing.

hundreds of years. In early times camel caravans from China brought loads of tea across Asia. Some of the caravans traveled as far as the Volga River. Then the tea was loaded on river boats and carried to many parts of Russia. Tea now comes by railroad from the Far East.

We learn that the farm on which the people in the village live is called a *collective* farm. The farm lands surround the village. This reminds us of the village that we visited in France. But, unlike the French, Russian farmers today do not own their land. Instead, the land belongs to the government of the U.S.S.R. In the days of the tsars the farmers lived in villages, but only a few owned their own fields.

In 1928 the government took possession of the nation's land. The farms around each village were "collected" or put together into one large farm. Now nearly all the farm lands of the U.S.S.R. belong to one collective or another. In each collective the villagers still live in the same village and work in the fields around it, but they do not choose the crops they will raise. Instead a Soviet official manages the farm and directs their work. The manager sees that the crops which the government wants are planted, cultivated, and harvested and that the government gets its share of them.

What crops are grown on this collective farm? The cool summers of this northern region mean that it has a short growing season. Rye is the chief grain crop.

Another crop is flax, from which linen is made. The northern part of the U.S.S.R. and the neighboring country of Poland grow a large part of the world's flax. Much of the Russian flax is exported to other countries.

"I've never seen such big cabbages," Frank says admiringly.

SCENES IN THE SOVIET UNION

Sunflowers are grown in the Soviet Union because of the oil that can be pressed from their seeds. Machine oil is made from them. Russians also like to eat sunflower seeds. Notice how large some of the blossoms are.

Eastfoto

Lautman from FPG

Saint Basil's Church, in Red Square, is now a museum. Notice the onion-shaped domes. Domes of this kind were often a regular part of church architecture in old Russia.

The building shown at right is the Bolshoi Theater. The ballet company of this theater is very famous. Operas are also given there.

Lautman from FPG

Sovfoto

Machines called combines, which cut and thresh the grain at the same time, are used on collective farms in the Soviet Union. It takes many combines like this to harvest the grain on the collectives. Most of the grain grown there will be shipped to the government storehouses.

Many persons in Russia learn the news from wall newspapers like this. The girl in the picture lives on a collective farm. She has read the local news and is pleased to find that her own work has been praised. The Russian word at the top of the bulletin board means "wall newspaper."

Sovfoto

The guide explains that cabbages grow well in a cool climate like this. Cabbages can also be stored for use in the winter. For this reason many cabbages are grown on the collective farm. But each farmer also grows cabbages in a garden back of his house. Cabbage soup and rye bread are everyday foods.

Large fields of potatoes are common, too. The world's greatest potato belt extends through East Germany, Poland, and the central and northern part of the U.S.S.R.

On our way to the airport we pass the fields of other collective farms and see the long rows of wooden houses which make up each village. Our visit to these farms and farm villages has been interesting. But we are glad that we live in a country where people can own their own farms and manage them as they wish.

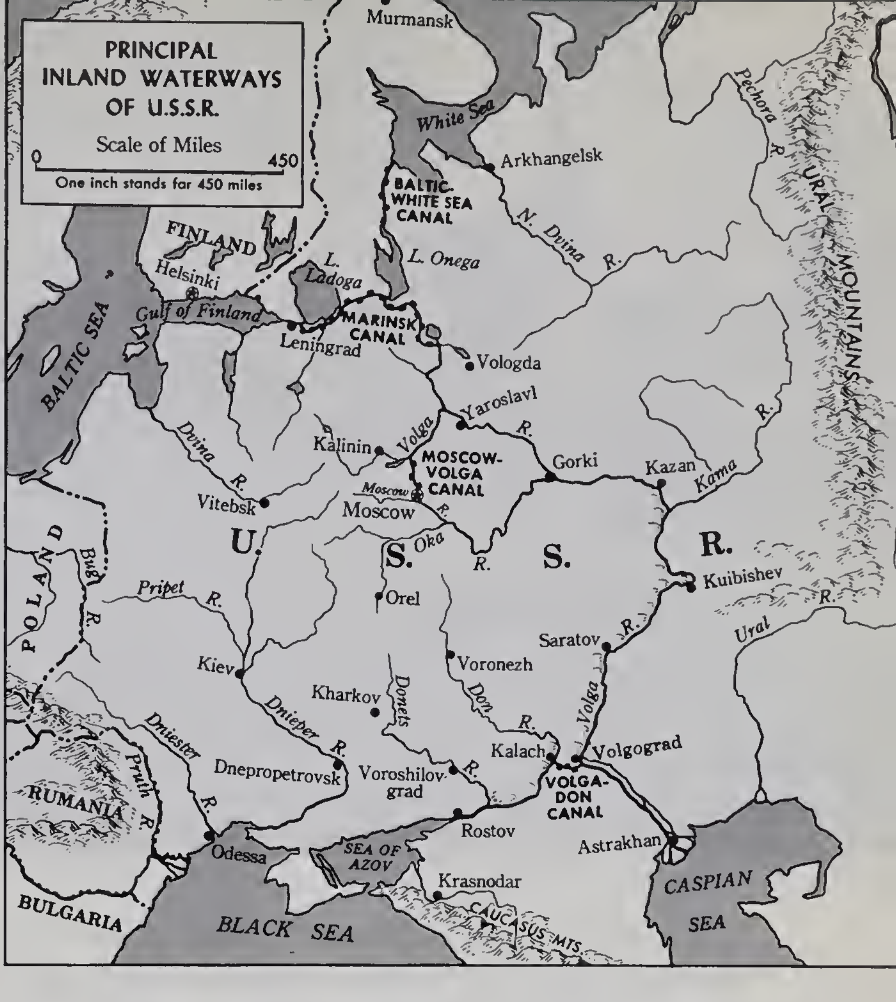
Moscow, capital of the U.S.S.R.

Our flight brings us to the Moscow airport after dark. As we approach the city, we see that the lighted streets spread out for many miles. When we land, we find a waiting bus that takes us to our hotel.

From our hotel we have a fine view of the towers of the Kremlin, facing Red Square, in the center of Moscow. Our guide explains that Kremlin means "fort" and that the Kremlin before Peter the Great's time was the home of the tsars. Today it is the home of the government of the U.S.S.R.

In Moscow we see old palaces, wooden houses, and many old churches with small onion-shaped domes. Among the old buildings rise the steel-and-concrete walls of new government buildings, of brick and concrete apartment houses, and the spires of a large new university. The Soviet government is rebuilding the city. As old houses are torn down, modern ones are put up. The government hopes to make Moscow as beautiful as other European capital cities.

Moscow has a modern subway of which the people are very proud. The underground stations at which the subway trains stop are decorated and painted in different colors.



Note the inland waterways shown on this map. Which are natural? Which are man made?

Moscow occupies an important position on the plain of Soviet Europe. The city is central in the river system, in the railroad networks, in the road system, and in the air routes. Raw materials for the factories and food are brought to Moscow from all directions. Manufactured goods are shipped from Moscow to all parts of the U.S.S.R.

Several rivers flow away from the area around Moscow. The Moscow River empties into the Volga. Most of the rivers are joined by canals (see the map on this page). A boat leaving Moscow can go north to the Gulf of Finland, or south to the Black Sea or the Caspian Sea.

Moscow is the center of a great spider web of railroads. Eleven railroad lines enter Moscow from all directions. Moscow is also the starting point of the Trans-Siberian Railroad, which extends eastward for more than 6000 miles until it reaches the Pacific. It has double tracks all the way to Vladivostok on the Pacific coast.

A tour of the city

We walk about Moscow and visit Red Square. Our guide tells us that the square is called red because the words for "red" and "beautiful" are similar in Russian. The Russians think the square is very beautiful. We note that the square is paved with bricks about the size of loaves of bread. We take a close look at the Kremlin. Here the leaders of the government live and work. Here they watch parades of soldiers as they march in May Day celebrations in a display of Soviet armed might. We visit a department store facing the square. Red flags and government posters are in evidence all over the city of Moscow.

We tour other parts of Moscow by bus. We see many theaters. We are driven through districts where large apartment houses have been built for office and factory workers. We drive through large parks, in one of which there is a zoo. On the edge of the city we see a giant sports stadium. We are told that games of soccer football and track meets are held here. We also see many factories. Most of the factories make textiles, clothing, shoes, small machines, and similar products. Moscow is not a center of heavy iron-and-steel industries.

Moscow is a quiet city. There is little traffic, compared to a city in the United States. Automobiles move quietly about the streets, for horns are forbidden. The trolley buses, which are operated from overhead wires, also move quietly. Moscow is a clean city, too. We are interested to see that most of the street sweepers are women. Perhaps this is one reason why its streets are so clean.

VIEWS OF MOSCOW

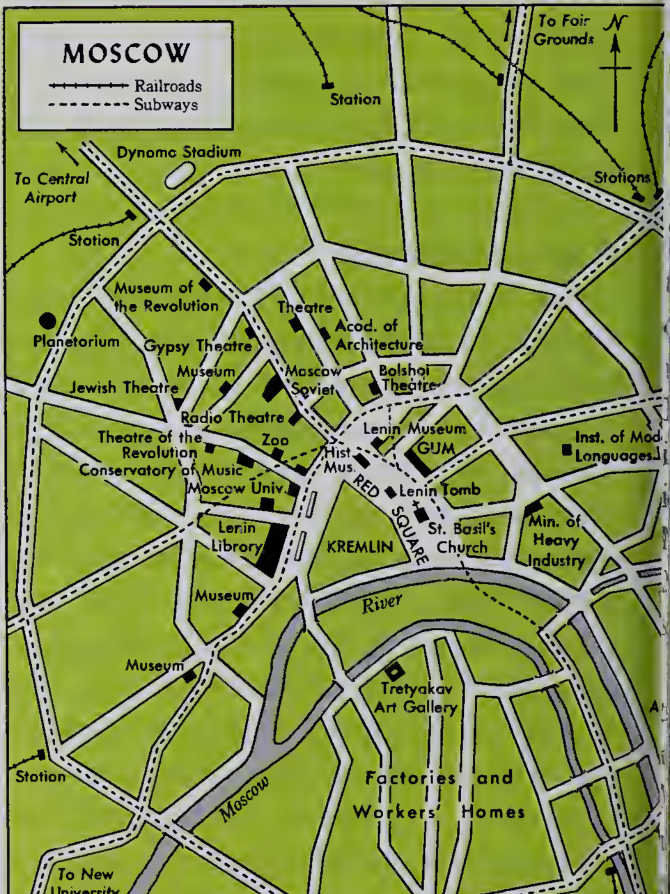
Ewing Galloway

The picture at left shows the Moscow River and the Kremlin. It was built by the tsars as a fort, but it contains important offices of the government today.

This map of Moscow shows the center of the city. Find St. Basil's Church. Find the Kremlin. Notice how the streets extend out from Red Square like the spokes of a wheel.

The map also shows Moscow's subway routes. The people of Moscow are proud of their subways. As the picture below shows, they are clean, well designed, and well lighted.

National Cash Register Company



Kiev, capital of the Ukraine

On our plane to Kiev we fly above great stretches of farm land. Then we reach the grasslands of the Ukrainian S.S.R. The Ukraine is the leading farm area in the whole Soviet Union. We are now above the famous "black-earth" region. After we left Moscow, we saw fewer and fewer trees. Now only the streams are lined with trees. As we descend to the airport, we see fields of corn, wheat, sugar beets, and sunflowers.

Kiev is a city of about 1,104,000 people. It is built on the western bank of the broad Dnieper River, on a low hill above the valley. We look across the river and see miles of flat country.

"Kiev is such an old city," says our new guide, "that it is sometimes called 'the Mother of Cities.' It was the capital of an early Russian kingdom. It is now the capital of the Ukrainian S.S.R."

"But the city looks very new," James says. "Why is this?"

"The German army captured Kiev in 1941," the guide answers, "and held it for two years. There was much fighting. Many of the old buildings were destroyed. When the war was over, the people rebuilt the city. But some of the old buildings are still standing. The oldest cathedral in the U.S.S.R. is in Kiev. It was built nearly 900 years ago. Notice that the domes are shaped like onions. Many of our churches have one big dome and several smaller ones at other parts of the roof.

"Kiev is an important city," the guide continues, "because from it goods are shipped to all parts of the Ukraine. It is a rival of Moscow for this kind of business. Much of the trade of Kiev grew out of a great fair held each year in early times. A fair in the Soviet Union is a place to trade. The Kiev fair has been held for hundreds of years. Persons from all the surrounding country come to the fair to offer goods and foods for sale. Others come to buy. This kind of trade has made Kiev an important commercial center. In the old days the trading was done in the open. Today it is carried on in offices."

Farming in the steppes

From Kiev we prepare to visit a farm on the steppe east of the city. It was from this region that the farmers came whose visit to the United States we read about at the beginning of this unit. Because it has rich soil and receives plenty of rain, the Ukraine is sometimes called the "breadbasket" of the Soviet Union.

The bus takes us across a bridge over the Dnieper. We have a twenty-five-mile trip across the flat plain. As we arrive at the farm, our guide introduces us to Vasily Granovsky, a farmer. Vasily will show us around the collective. Vasily speaks Russian only, so our guide will be our *interpreter*. As an interpreter, he will tell us in English what Vasily says in Russian.

"On this large collective farm," our guide explains, "there are five villages. The people of all five villages work on this collective. They raise many different crops there."

As we walk through one of the villages, we see that the houses are built in a long row facing the road. A high wooden fence separates each house from the road. The houses are made of stucco, a kind of plaster, because there is little wood in this region. Wood is used only in the framework of the house. Nearly all of the houses have small front porches.

Vasily says that each house has a large living room, a kitchen, and two or three small bedrooms. The roofs of the houses are thatched with straw from the near-by fields.

The farmers, or peasants, of this small village in the Soviet Union work on a collective farm. What do you notice about these Soviet homes? Compare this village with rural communities you have seen.

Wheat, oats, or rye straw are used for this purpose. We notice that the roofs of some are made of tile. Vasily explains that sparks sometimes set the straw on fire. In the past the most prosperous farmers used tile to guard against fire. Today, however, tile roofs may not be used, but shingle roofs are allowed as well as straw.

Near the center of each village is a well, at which the village families get their water. Because each village has only from fifteen to thirty houses, no one has far to go to get water. It is a chilly chore to go to the well during the cold winter days. Some of the wells have hand pumps, but others are pumped by electricity. Each house has electric lights. Electricity is brought to the village from a power plant in Kiev.

Vasily tells us that he works for the government, as everyone else on the collective does. But the government allows him to have a few things of his own. Back of his house he has a small barn with a thatched roof. In this he has two cows, three pigs, and some chickens. These animals he is allowed to own. He has the use of one acre of land. On this he grows cabbages and potatoes for part of his winter food supply. On the collective he works in the fields from 250 to 300 days a year. He is paid a small daily wage. In addition, he is allowed grain, vegetables, and some meat for the use of his family. Each month the government also provides a certain amount of hay for his two cows.

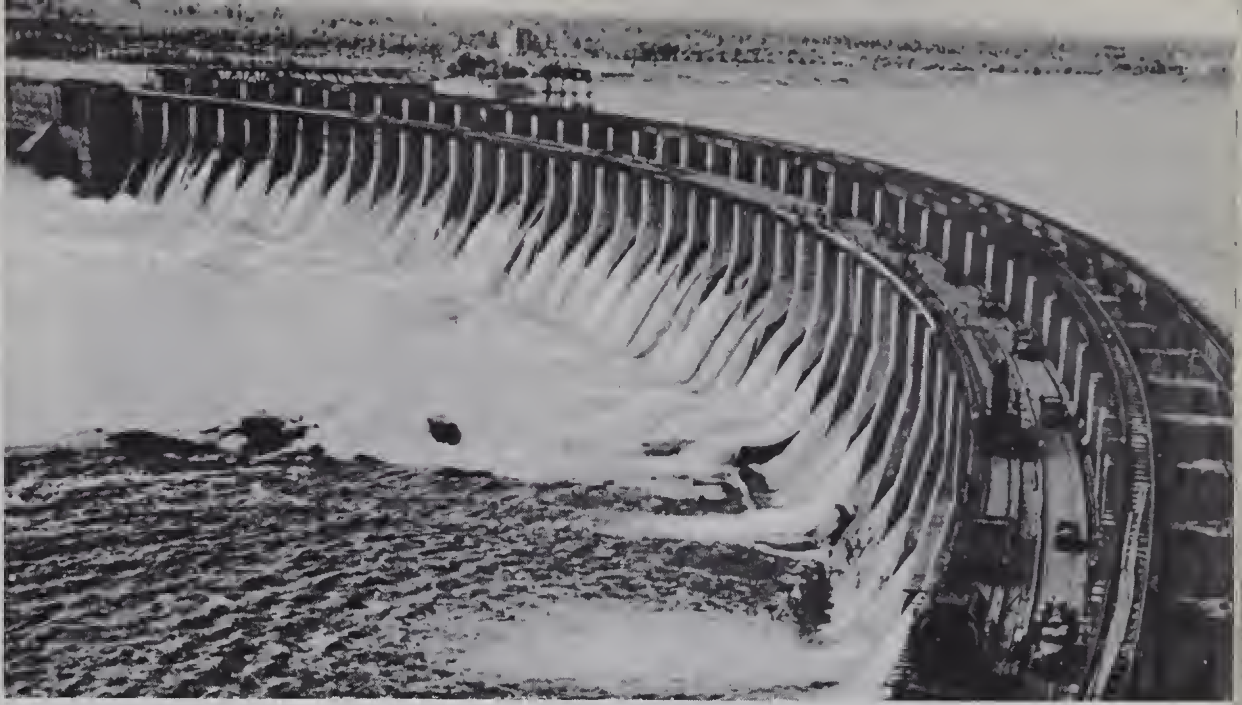
On this collective the farmers raise corn, wheat, oats, barley, hay, and some rye. They also grow sugar beets and sunflowers.

"The low building over there is a tractor station," Vasily continues. "The tractors, plows, harvesters, and other machinery for our collective are kept there and repaired there. Some people do not work in the fields. Their work is to service the machines and keep them in good running condition. The square building near the tractor station is the manager's office. The flag flying above it is the flag of the Soviet Union."

"What happens to the crops that the farmers raise on the collective?" Fred asks.

"First," Vasily answers, "we must fill our *quotas,* or the amounts set by the government. The manager of the collective ships the government's share of the crops to the proper government storage place. When the quotas have been filled, the people may have the remainder of the crops."

In World War II the dam on the Dnieper River was destroyed by the Russians to prevent its being taken by the Germans. After the war the big dam with its electric power plant was rebuilt by the Russians.



"What are the sunflower seeds used for?" asks Helen.

"Sunflower seeds are grown chiefly for the oil that can be pressed from them. Some of the finest machine oils are made from sunflower seeds. In the Soviet Union we lubricate many of our machines with this oil. But we also eat sunflower seeds as you eat nuts."

We thank Vasily for showing us around. As we leave, we realize that the crops and the fields on the collective look much like our fields at home. But the straw-thatched farmhouses are very different from farm homes in the United States. The Soviet way of life is also very different from ours. In our country farmers own or rent their farms, plan the crops they raise, reap their own harvest, and sell their products as they choose.

The Donets Basin

We fly from Kiev to Kharkov. At Kharkov we take a train. After a one-hundred-mile trip to the south we are in one of the towns of the Donets Basin. Between the towns we see collective farms in this region of treeless steppes.

The Donets Basin (sometimes called Donbas) is a region rich in iron ore and coal. It is north of the Black Sea and somewhat inland. The land surface is a flat and rolling plain, which is crossed by the Donets River.

The town where we have stopped is built around a coal mine. Steel mills and other factories have been built in the town. There are rows of houses. There are also government-built apartments occupied by the miners and steelworkers and their families. We see carloads of coal being loaded. Where will it go? One of the men at the mines tells us that trainloads of coal are shipped from here to towns near the iron mines. The coal and the iron ore are also shipped to other cities of the Donets Basin in which there are iron-and-steel mills.

We pass many factories as we continue our train trip. Some are mills where steel is made. Others are factories that use steel in making such things as refrigerators, stoves, and machinery. We see power plants, too, in which coal is used to produce electricity.

"Is all the electricity made from coal?" asks James.

"It is in the Donets Basin," says our guide. "But about one hundred miles west of here a great dam has been built on the Dnieper River. The Dnieper dam is the largest in all

Europe. Electricity at this dam is made from falling water. But here in the Donets Basin we depend on coal."

The train takes us through the center of the Donets Basin. After a night's rest at a hotel, we shall go by airplane to Volgograd.

Volgograd and the Volga

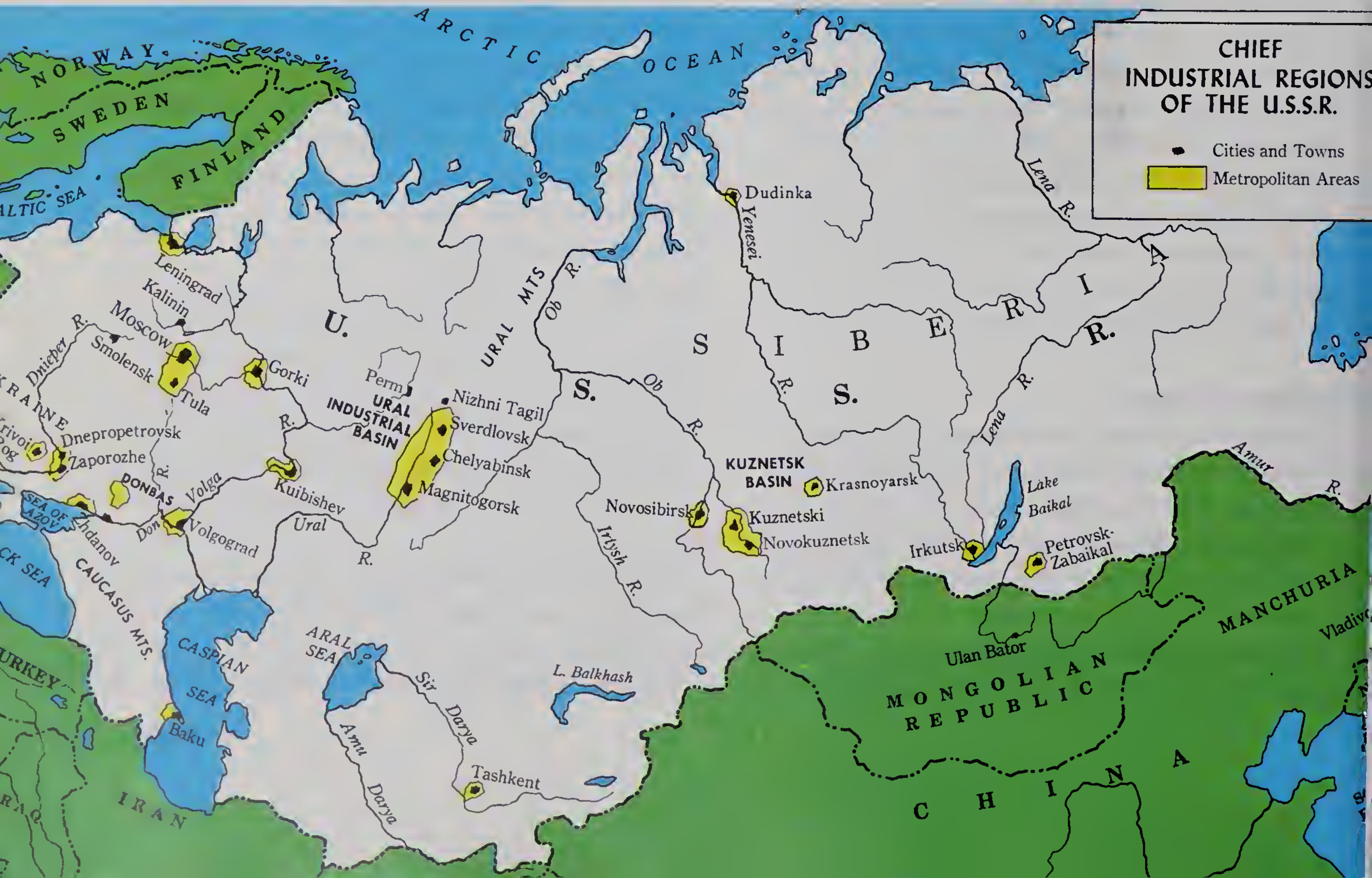
We are eager to see the Volga River because we have heard a great deal about it. The Volga, which is more than 2000 miles long, is the largest river in Europe. Our plane flies eastward over great wheat fields and many factory towns. We land at Volgograd, a city on the bank of the Volga.

The wide river is in front of us as we stand on the hill on its west bank. The view is something like that at Kiev because the east bank of the Volga is low and flat and the west bank is high. Most of the buildings are new because, during World War II, the city (then called Stalingrad) was almost completely destroyed.

Volga River boats are sailing both upstream and downstream. Others are being loaded or unloaded at the docks. For many hundreds of years the Volga has been important in the transportation of people and freight. Before steamships were in use all river traffic was on barges, which were pulled by men on the shore. From the rhythmic chants of these bargemen came the famous "Song of the Volga Boatmen."

We visit the docks to see what the boats are carrying. Some of them, we learn, have come from Moscow filled with shoes, clothing, and other goods manufactured in Moscow. They sailed into the Volga from the

Where are the largest industrial areas in the Soviet Union? What important cities are located in each area? What are some of the products exported from Moscow's factories? From the Donbas?



The region near Baku, on the Caspian Sea, is one of the world's richest oil areas. These wells have been dug down in the sea not far from the shore.

Sovfoto

Moscow River. Other boats have come from far north of the U.S.S.R., at the upper part of the river. They have brought wood and paper from factories in the north.

Some boats interest us especially because they are unloading oil. One of the boat captains tells us that he loaded the oil at Baku. Baku is at the edge of the oil fields on the western shore of the Caspian Sea. From Baku he sailed across the sea and up the river to Volgograd.

There are many fishing boats in the harbor, too. Among the fish are huge sturgeon from the northern part of the Caspian Sea and from the part of the Volga between Volgograd and the sea. The fish often weigh more than 2000 pounds. The eggs of the sturgeon, called *caviar,* are a Russian delicacy for which there is a world market. Most of the caviar is exported.

"Do your boats run only on the Volga and on the Caspian Sea?" we ask a boatman.

"No," he answers, "our boats can use canals to reach other parts of the country. There is a new canal which leads from the Don River to Rostov, on the Sea of Azov, a body of water which connects with the Black Sea. This means that wheat from the steppes can be shipped to Rostov and then overseas. Boats from the Black Sea can come through the canal to the Volga, travel far upstream, and by means of other canals reach the Baltic Sea. Wheat can also be shipped north from the steppes to Moscow on rivers and the canals that connect them."

Industry in the Urals

We have a long flight ahead today, as we can see from the map on page 237. Our trip will be across the wheat-growing steppes.

We learn that the Volga region receives only ten to fifteen inches of rainfall during a year and therefore it is much drier than the farm lands of the Ukraine. Wheat and barley are the leading crops in the Volga region.

We wish we could stop on the steppes to the east of the Volga. Perhaps we would see a Russian Cossack. Many Cossacks were daring fighters in the armies of the tsars.

But today the Cossacks have nearly all disappeared. When farmers moved to the steppes to grow wheat, the pastures were plowed up to make wheat fields.

Our visit today is to the iron-mining city of Magnitogorsk in the rolling Ural Mountains. Magnitogorsk, which has one of the largest deposits of iron ore in Europe and Asia, is a new industrial city. It was built after 1929 on the barren steppes on the border between the Urals and western Siberia. The city increased greatly in importance during World War II. When the Germans threatened to invade the Soviet Union, the Russians moved many industries to Magnitogorsk behind the Urals. It is today a city of about 311,000 people.

Trainloads of coal are brought to the city, and trainloads of iron ore are sent to other parts of the country. A great amount of steel is made in Magnitogorsk and shipped by train to factories for manufacture.

Do you know—

1. Where is Leningrad? Why is it important?
2. What is a collective farm?
3. What is Moscow like?
4. What products do boats on the Volga River carry?
5. Why was the city of Magnitogorsk built?

Words and Terms to Remember

Bolshevists
interpreter
collective
soviet
taiga
steppe
cede
abdicate
ballet
samovar
quota
caviar
tribute
tundra

A Matching Game

Number a paper from 1 through 14. After each number write the word or term from the list above which matches the definition.

1. The party in Russia which waged the October 1917 revolution
2. A governing council, or committee, in the U.S.S.R.
3. A great forest region in the U.S.S.R.
4. A treeless plain in northern arctic regions
5. To surrender, or give up, territory
6. To give up a throne or other high office
7. A vast, grassy region in southeastern Europe and Asia
8. A large farm owned and operated by the government
9. A dance that tells a story
10. A person who changes spoken or written words from one language into another
11. The eggs of sturgeon, salted and prepared for use as food
12. The government's share of the products from a Soviet farm or factory
13. An urn used in Russia for heating water
14. Taxes, or forced payments, required as the price of protection

Ewing Galloway

A camel caravan stops for rest and refreshment at an oasis in Russian Turkestan. Caravans carrying loads of silk and jade during the Middle Ages probably stopped at this same spot.

3. WHAT SOVIET ASIA IS LIKE

At Magnitogorsk, on the boundary of Europe and Asia, we decide to rest for a day or two and review our travels. This will also give us time to learn about Soviet Asia.

OUR ROUTE IN SOVIET ASIA

Fred posts the map which shows the route we will follow in Soviet Asia. The map is like the one on page 252.

"The first place we will visit," Fred says, "is about 600 miles to the south and east, in Soviet Central Asia. This is a dry region east of the Caspian Sea where irrigation is used to produce fine crops.

"A plane will then take us far to the north, to the steppes of western Siberia for our second stop. There we will visit a government farm not far from Omsk.

"Our third stop will be near Omsk, where we will have a look at a lumber camp in the taiga of Siberia.

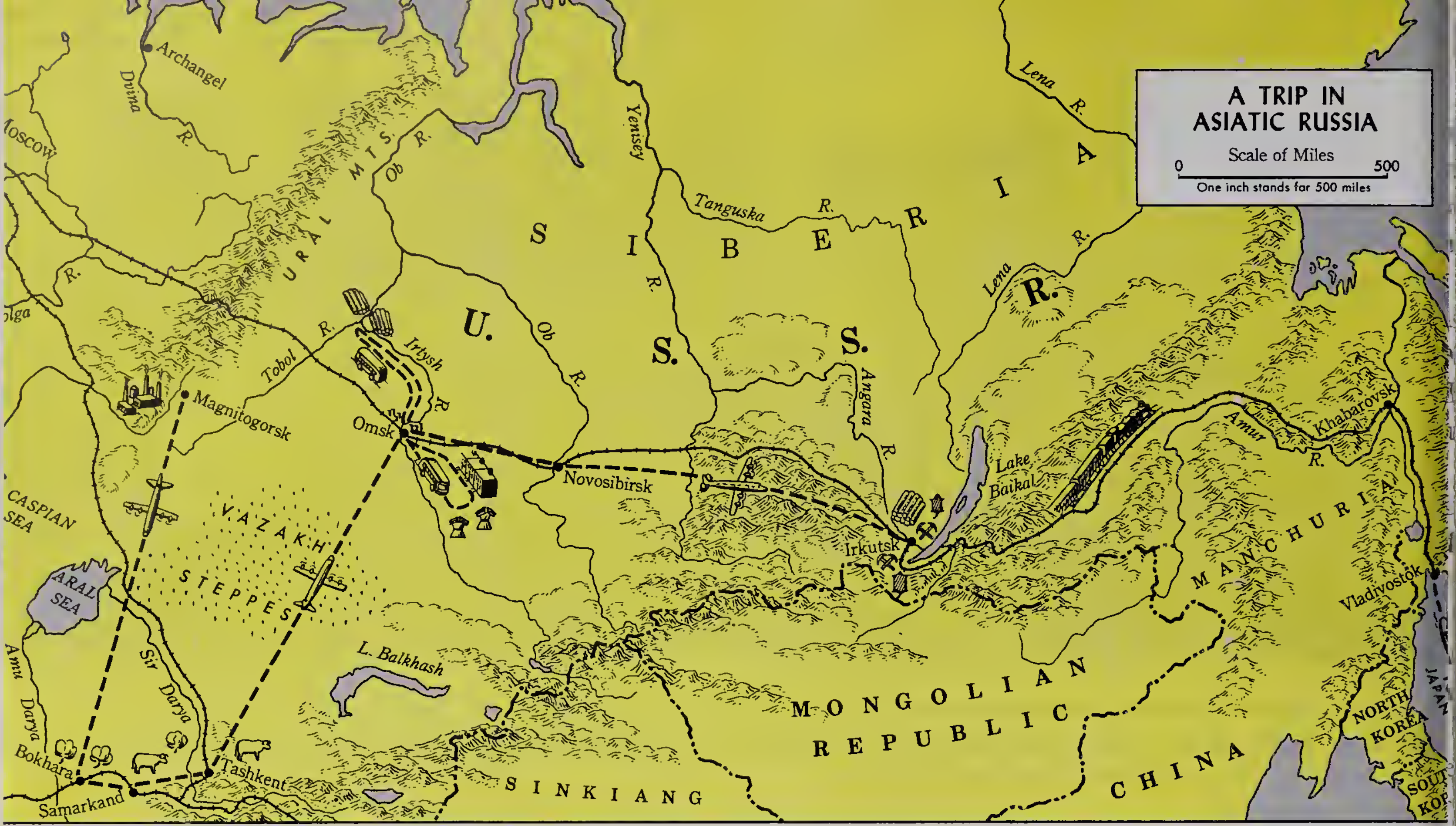
"Our next flight will take us more than 1000 miles to the east. We will land in Irkutsk, a city in the hilly and mountainous parts of Siberia. Irkutsk is near a famous gold-mining region.

"At Irkutsk, which is on the Trans-Siberian Railroad, we will take a train for Vladivostok. Vladivostok is the Soviet Union's largest seaport on the Pacific. This will be our last stop in the U.S.S.R. After that we shall be on our way home."

The students look at the map. A quick check shows that their trip in Soviet Asia will be more than 3000 miles in length from Magnitogorsk to Vladivostok.

SOVIET CENTRAL ASIA

The region we are to visit first is a very dry area called Soviet Central Asia. It is inhabited by many different peoples who have various ways of living.



Trace the route of the class through Soviet Asia as described in the text. Follow this map to locate the cities on their route, the kinds of country seen, and the different industries visited.

History of Soviet Central Asia

The ancestors of the present inhabitants were among the barbarians who swept westward across the region of the steppes hundreds of years ago. The Tatars who invaded Russia came from this region. Today descendants of these early peoples and of other Asiatics live there. Most of the Russians in the region are government officials.

Central Asia was conquered about one hundred years ago by the armies of the tsars. These armies continued to march until they almost reached India, a British possession at that time. The British were afraid that the tsars might try to conquer India, too. But the two countries reached an agreement, and there was no war. Today the Soviet Union is separated from the republics of Pakistan and India by a high range of mountains (see the map, page 228).

Soviet Central Asia today is divided into eight republics. Among them are the Kazakh S.S.R., the Uzbek S.S.R., and the Turkmen S.S.R. Find them on the map on page 228.

A green area in the desert

Soon after leaving Magnitogorsk we are flying over dry lands. We arrive at an airport in a town on the edge of green cotton fields, through which run irrigation ditches. On the other side of the airport the country is pasture land. Sheep and cattle graze on this unirrigated land, and herdsmen can be seen riding about. Some parts of these dry lands, we learn, are true deserts and support very few animals.

The scenes in the cotton fields are very different from those we have seen elsewhere in the Soviet Union. The workers wear long, white robes and have cloths wound around their heads like turbans. Some of the workers are driving tractors, and others are plowing. We note that the plows are pulled by camels. Yes, it is certainly a different scene.

The land in this valley of Soviet Central Asia is irrigated by water from the Amu Darya River, which rises in the Hindu Kush Mountains and flows to the Aral Sea. The guide who met us tells us about the workers.

"In this part of the Soviet Union," the guide explains, "the people are followers of Mohammed. In the towns in this region we will see their domed places of worship."

"We are in one of the oldest of civilized lands," says Miss Robinson. "It was once called Turkestan."

On the way into the city we learn that the new irrigation works were built by the government. Now water is supplied to grow food crops and large amounts of cotton. The Soviet Union has few regions that are warm enough to grow cotton. This part of Central Asia is one of them. Because cotton is needed, the Soviet officials require the farmers here to grow cotton. The cotton is sent to government-owned factories.

The city of Samarkand grew up on the ancient route used by traders traveling in caravans between Europe and the Far East. This route followed the oases at the foot of the mountains. Today Samarkand is a thriving city with modern cotton mills. Many farms in this region now grow only cotton. The people who live and work here get their food from other government-owned farms. But there are large sugar-beet fields in these dry lands, and fine fruits are grown.

VAST SIBERIA

Now our plane heads north to the steppes of western Siberia. This trip is by daylight. The farther we go, the greener the land becomes. Soon the deserts and oases have been left behind, and green pastures appear. Then we see great wheat fields. We are back in the black-soil steppes. These steppes continue from the region north of the Black Sea through the lower Volga River country and into western Siberia.

We land at Omsk, a city in the steppes. Omsk is on the Trans-Siberian Railroad. This railroad is the lifeline of the U.S.S.R. It starts at Moscow, crosses the Urals, runs through Omsk, on to Novosibirsk. From Novosibirsk it goes to Irkutsk, then eastward and southward to Vladivostok. It is the longest railroad in the world. To the north of the railroad are the great forests of Siberia. To the south are wheat fields.

Our first visit will be to a government wheat farm. Then we will go to a lumber camp in the northern forests.

Sovfoto

These three men are working in a Siberian chemical factory which makes chemicals from coal. The chemicals are used to make paints, dyes, gasoline, and some explosives.

A government farm in Siberia

We depart from our hotel on a bus and drive on dirt roads. The wheat fields on either side of us tell us that this is a great grain country.

At the farm we are greeted by the farm manager. We are eager to see how this government farm differs from the collective farms we visited in Soviet Europe.

The first difference that we observe is that all the houses in the village are new. They are built of wood and stucco. Most of them are built in rows and are attached to each other. Each building has six or seven homes. Each family has its own front door and back door and front and back windows. Only the houses on the ends have side windows. Sometimes there are no side windows there either because the government wants to give each farm family the same kind of home.

"There are two kinds of farms in the Soviet Union," the manager explains. "Collective farms and government farms. Government farms are called *sovkhos.* The government formed the collectives by putting together farms once owned by individuals. But when farming was begun on the frontiers, the government made what are called *sovkhos,* or state farms. This is the kind of farm that I manage.

"This is new land," he continues. "It was not cultivated during the days of the tsars. The government started the farm, and government officials chose the site of the farm village. They planned and built the houses. Then they sent farm workers here from the Volga steppes. The government furnished the plows, tractors, and combines."

"Can the workers use any of the land?" we ask the manager.

"The farmers may use small plots as gardens, just as they do on a collective," the manager answers. "In some of the cities a worker can build his own house, but the government owns the land on which he builds it. He has to pay rent to the government for the use of the land."

On our way back to town, we think about the Soviet system and how different it is from ours. We are glad that in the United States we can own our homes and farms and that we can work for ourselves.

A Siberian lumber camp

Our trip to the forest lands of Siberia takes us by bus for some distance to the north of the railroad town. Soon we enter thick woods of fir and pine.

The rivers of Siberia flow northward to the Arctic Ocean. They are used by ships and barges during the summer and by sleds on the ice in the winter. The lumber camp we visit is beside a river.

"Most of the logging is done in winter," the manager says. "The logs are piled on sleds. Then tractors pull the loaded sleds over snowy roads to central points. Some of the logs are shipped south to towns on the Trans-Siberian Railroad. Sawmills there cut them into boards. Large supplies of lumber are needed for houses on the treeless steppes. Often the logs are taken to the banks of rivers, where they are piled up. When the ice melts, the logs are pushed into the water and floated downstream to the north. They reach lumber mills on the Arctic Ocean."

We are surprised. "Aren't the mills a long way from where the wood will be used?"

"Yes, but the government has many ships on the Arctic Ocean to take the lumber to other parts of the Soviet Union."

"Is all the wood used as lumber?" we ask.

"Much of it is, but the Soviet Union also makes much paper. We ship newsprint for use in newspapers to Japan and to countries in western Europe."

Our trip to the forest has been interesting. We have been in the largest forest in the world. We look at maps to see the large forest area. It stretches from Finland across European Russia and northern Siberia. It also covers most of eastern Siberia, east of the wheat-growing steppes.

Irkutsk and Lake Baikal

We have a day to rest, so we study maps of Siberia and find Irkutsk, the place we will see next. The journey to Irkutsk will take us out of the plain of western Siberia into hilly and mountainous eastern Siberia.

We fly eastward. After awhile the wheat fields of the steppes are behind us, and we are flying over a land of mixed forests and farms. We see mining towns below us.

Finally, we land at Irkutsk, a city with nearly 300,000 people. Irkutsk is built beside a rushing northern-flowing river, the Angara. This river, which rises in Lake Baikal, is clear and very different from the muddy rivers of the steppes. Evergreen forests surround the city, and signs of the lumber business can be seen. Piles of fur and skins in the stores show that hunting and trapping in the forests are important.

"What is mined in this area?" James asks.

"Gold, chiefly," our guide replies. "To the north, in the valley of the Lena River, there are large gold fields."

"This part of Siberia is one of the great mineral storehouses of the world," Miss Robinson says. "It is like central and northern Canada in its mineral wealth."

At Irkutsk we board an eastbound train on the Trans-Siberian Railroad. To the north we see beautiful Lake Baikal. This body of water, which is more than one mile in depth, is the deepest fresh-water lake in the world. The railroad tracks are laid on rock shelves blasted out of the mountainside. South of us is the Mongolian Peoples Republic, a satellite of the Soviet Union.

Vladivostok, seaport on the Pacific

After a ride of more than 2000 miles along the curving route of the Trans-Siberian Railroad, we reach Vladivostok. This city is the most important Soviet port on the Pacific Ocean. We visit the fine harbor. Our guide tells us that it is frozen about three months of the year, but it can be kept open by icebreakers. Most goods coming in from the Pacific are shipped through Vladivostok.

North of Vladivostok there are rich deposits of iron ore. There are also great forests near by. Most lumber exports from the Soviet Union go through Vladivostok.

With our visit to Vladivostok our tour of the Soviet Union has come to a close. We thank our guide and bid him good-by. We will now take a ship to Tokyo, where we will catch a plane for the United States. Our trip has been an interesting one.

On the plane we discuss what we have seen, what the Soviet way of life is like, and how it differs from our own. The chief difference arises from the fact that the Soviet Union is a dictatorship and the United States is a democracy. When we are back in our classroom, we will find out how these differences have arisen and how the Soviet government works.

Do you know—

1. What is Soviet Central Asia like?
2. Where is Siberia? What kind of farms does Siberia have?
3. What cargoes are carried on Siberian rivers in summer? In winter?

Edo Koenig from Black Star

Buildings of Moscow State University, in a suburb called Lenin Hills, are shown above. The university has about 23,000 students, including those who study in the correspondence courses.

4. LIFE UNDER RUSSIAN COMMUNISM

Russia under the tsars was a great world power for two hundred years. From a small area around Moscow it expanded through exploration, settlement, and war into the world's largest nation. The tsars were all-powerful rulers. They held their many different peoples together through strict laws and by means of secret police. The people had little to say about their government. If they spoke against the tsar, they were exiled. Siberia was used as a place of exile because it was a far-distant region.

THE SOVIET GOVERNMENT

In 1917, as we have learned, the Bolshevists, a revolutionary party made up of workers, took over the government. The Bolshevists believed that the government should own and operate the farms, factories, railroads, and other activities and that the workers should manage these. This plan of government is called *socialism.*

Communism established

Soon after they came to power, the Bolshevists began to call themselves *Communists.* The Communists adopted the red flag as the symbol of the Communist party.

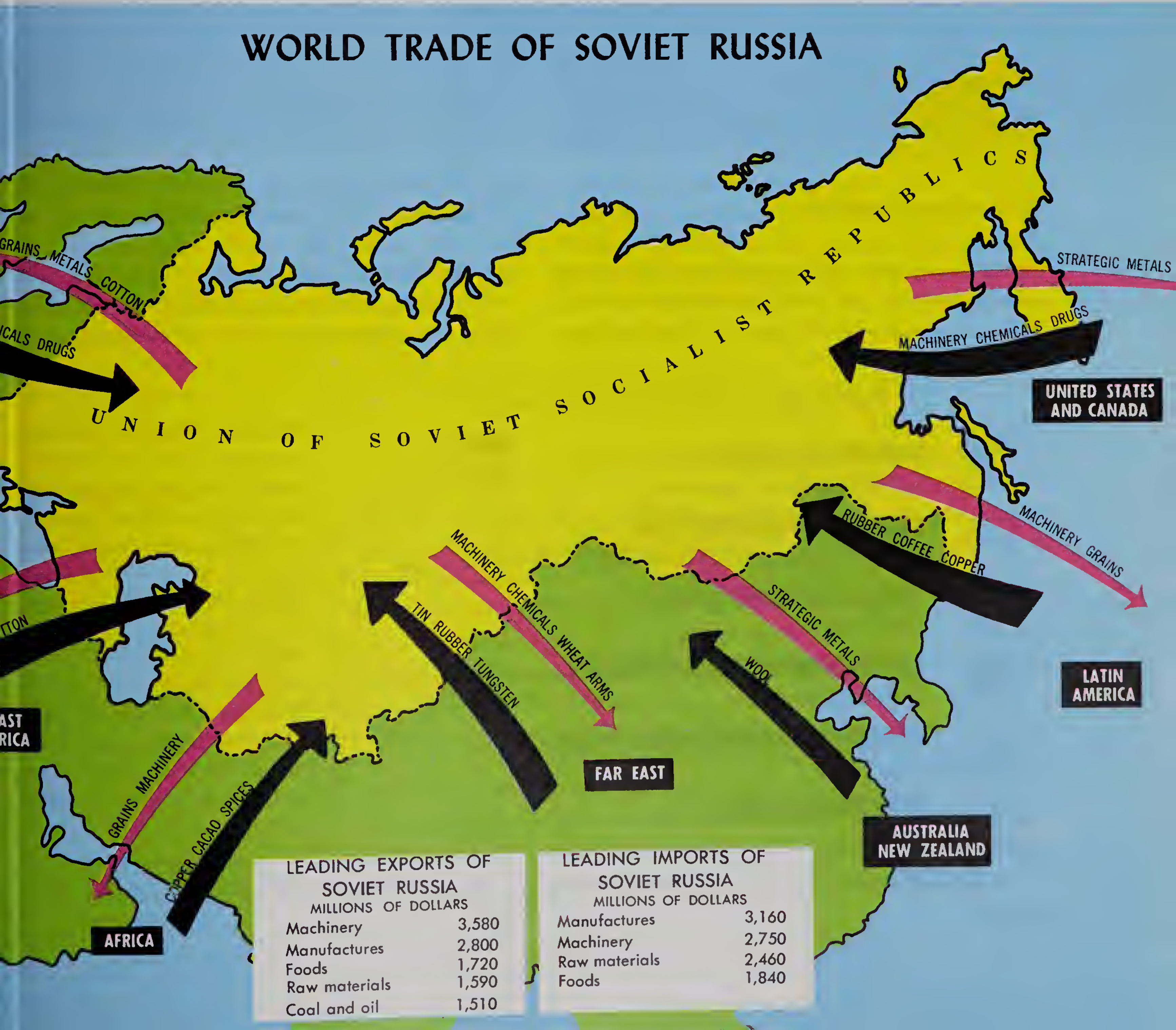
The Communists carried out a bloody revolution. Under the leadership of Lenin they created a Communist government. Soviets of workers were formed to put the new government into operation. The Communist leaders set themselves up as dictators and crushed everyone who opposed them. Their rule was even harsher than the rule of the tsars. By 1924 they had brought all of Russia, in Europe and in Asia, under Communist control. The government they established became known as the Union of Soviet Socialist Republics. The capital was moved to Moscow.

In 1924, when Lenin died, Josef Stalin came to power. Stalin was really a dictator. Under his leadership the Communists ruled with an iron hand. Secret police became more numerous. Those who disagreed were tried, and many were killed.

How communism works

The Communists united the people of the U.S.S.R. But they adopted a plan of government that allows them few of the freedoms that we enjoy in the United States.

Under communism the government owns all the nation's land, factories, forests, and mines. Soviets, or committees, run the farms, factories and other productive activities. The manager of a farm or factory, mine or lumber camp, reports to the local, or home, soviet at regular times.



WORLD TRADE OF SOVIET RUSSIA

LEADING EXPORTS OF SOVIET RUSSIA
MILLIONS OF DOLLARS

Machinery	3,580
Manufactures	2,800
Foods	1,720
Raw materials	1,590
Coal and oil	1,510

LEADING IMPORTS OF SOVIET RUSSIA
MILLIONS OF DOLLARS

Manufactures	3,160
Machinery	2,750
Raw materials	2,460
Foods	1,840

Each of the fifteen republics is directed by a soviet made up of its own representatives. A national council, called the *Supreme Soviet,* rules the whole country. It meets in Moscow once or twice a year. To be a member of any soviet, a person must belong to the Communist party. Only a small part of the population belongs to the party.

The most important council in the U.S.S.R. is the Presidium of the Central Committee of the Communist party. The Presidium is a group of about ten men who are the actual rulers of the country. It tells the Supreme Soviet how to vote.

LIFE UNDER COMMUNISM

The peoples of the U.S.S.R. live under the strict rules of the Communist government.

Government controls

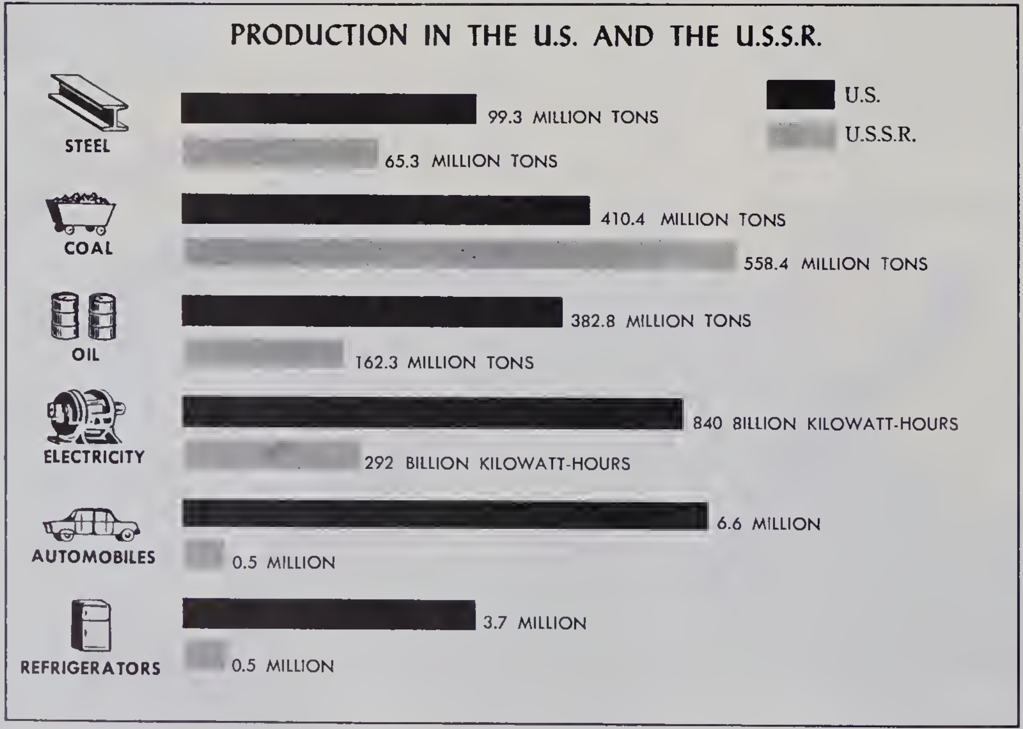
The Russians are not permitted to learn about any form of government except their own. Elections are held, but everyone votes "yes" to the proposals made by the Communist officials. The Communist party runs the newspapers, the magazines, the radio and television stations. The people are told only what the government wants them to know.

The farms are owned and run by the government. Farmers on the collectives receive certain products as part of their pay.

The five-year plans

In 1928, under Stalin's leadership, the Soviet government began a program of work to be accomplished within the next five years. By means of this "Five-Year Plan" Stalin hoped to develop industry and farming in the Soviet Union. Like Peter the Great, Stalin brought experts from other lands to help with the program of building new power plants and factories and developing mines. Other five-year plans followed, in which the people were told exactly what crops to raise and strictly held to account for producing their quotas.

Under these five-year plans new farms have been developed and new cities built. On



How does the Soviet Union compare with the United States in manufacturing? In which product does the U.S.S.R. nearly equal the production of the United States? Note the number of refrigerators made by the Russians, and compare with the population figures listed on the chart on page 230. How much chance does the average Russian have of owning a refrigerator?

United Nations Photo

This young Russian worker in a machinery plant is using a grinding machine to put a smooth surface on a block of metal. Note the sparks which are being produced by the friction of metals.

the government farm that we visited in Siberia we learned that the farmers had been brought to it from other regions. New cities have been built in Siberia and in the far north, but the Soviet Union has told the world little about them.

New production goals

Not long after Stalin's death, in 1953, Nikita Khrushchev became the Soviet leader. He was also a dictator, but he tried to help the Russians by making more consumer goods available. He also gave the collectives more responsibility for determining their production goals. But they still had to work toward goals set by the government.

In 1961 Khrushchev announced a new plan which called for Russia's surpassing the United States in industry and farm production in twenty years. The program got off to a slow start, especially in agriculture.

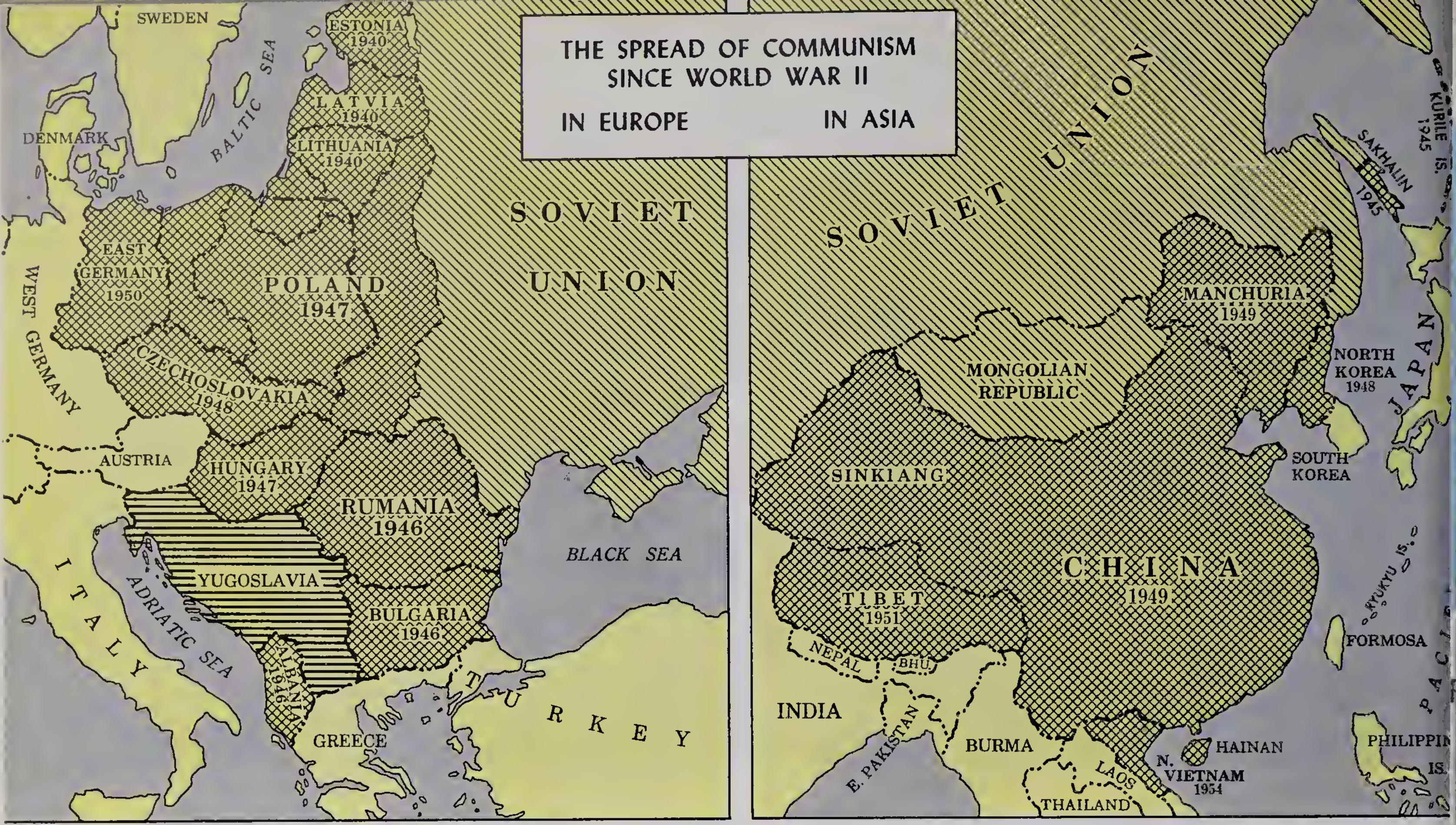
Education and science programs

In the Soviet Union, all children must complete eight years of schooling. The government decides the subjects to be taught and chooses the books to be used.

Science and technical subjects receive special emphasis in Soviet schools. The many engineers and scientists who graduate each year are given jobs by the government.

The attention given to science has made the Soviet Union a leader in the conquest of space. In October, 1957, the Russians launched the first satellite, Sputnik 1. Other satellites followed. One of them circled the sun.

Then, in April, 1961, a young Russian air-force major, named Yuri Gagarin, was rocketed into space and circled the earth in a manned spaceship. In August, 1961, Gherman Titov, another Russian, orbited the earth seventeen times in twenty-five hours.



These maps show how the Union of Soviet Socialist Republics has expanded since the end of World War II. List the European nations in the time order in which the Russians took them over. After World War II China followed Russia's lead and became Communist, as we will learn later.

Methods of expansion

Like the former Russian empire, the Soviet Union has extended its borders by war. In 1939 the U.S.S.R. fought a war against Finland and took a portion of land. The three Baltic lands of Estonia, Latvia, and Lithuania were absorbed by force into the U.S.S.R. Poland also lost much of its eastern land to the Soviet Union.

The Soviet government has also extended its power in another way. It has sent its agents into other countries to teach them about communism. In some countries these agents have been able to weaken and undermine the governments and to get control of them. Puppet rulers who do the bidding of their Russian masters now run these governments. Today Soviet leaders are working unceasingly for world revolution.

A world apart

The stern rule of the Communists holds the many peoples of the U.S.S.R. together. The Soviet Union has a way of life of its own. This vast nation lies between western Europe with its democratic ways and the Far East with its Oriental ways. It belongs to neither of these but is a world in itself. And it is engaged in a "cold war" with the free nations of the West.

Do you know—

1. How did the Communists establish a government in Russia?
2. What were the "five-year plans"? How did they work?
3. In what ways has the Soviet Union grown in power since 1939?

TO HELP YOU LEARN

Words and Terms to Remember

sovkhos socialism Supreme Soviet Communists

A Matching Game

Number a paper from 1 through 4. After each number write the word or term which matches the definition.

1. **A system under which the government owns and operates farms, factories, mines, and other means of production**
2. **Government-owned farms in the Soviet Union, established on land never before cultivated**
3. **The name adopted by the Bolshevists after they won control of Russia**
4. **The national council which rules the Soviet Union**

Finding the Facts

1. What is the official name of the Soviet Union?
2. Describe a tundra, a taiga, and a steppe. Tell where each of these regions is located in the Soviet Union.
3. How many languages are spoken in the Soviet Union? To what language family does the leading language belong?
4. How did St. Petersburg become the capital of Russia?
5. Why did Peter the Great want "windows" for his country? How did he gain them?
6. What territory did Empress Elizabeth add to Russia? Catherine the Great?
7. Who owns the farm lands of the Soviet Union? Who decides what crops will be raised? How are the crops divided?
8. What is the chief export crop in the northern part of the Soviet Union? The chief grain crop?
9. How did Kiev become an important trading city? What is the city like today?
10. Where is the "breadbasket" of the Soviet Union? Why is it so called? Describe a village in this area.
11. What may a Russian farmer own? How can a farmer add to his food supply?
12. Where is the Donets Basin located? Name two great resources of the Donets Basin.
13. What are the two kinds of farms in the Soviet Union? How are these farms alike? How do these farms differ?
14. Name three natural resources found near Irkutsk. What is the region like?
15. Locate Vladivostok and explain its importance to the Soviet Union.
16. In what direction do the rivers of Siberia flow? What cargo is carried on the rivers in summer? In the winter?
17. How did the Communists come to power in Russia? What kind of government did they set up?
18. Compare the Supreme Soviet and the Presidium in the government of the U.S.S.R.
19. Why are most Russians unacquainted with events and conditions in other countries?
20. Why may it be said that the Soviet Union is a "world" in itself?

Using Maps

1. Turn to the map on page 228 and find the bodies of water on which the Soviet Union has seaports. Find the mountains that form the dividing line between Europe and Asia. What high mountains are located near the Black Sea? Find the large Russian seaport that is nearest to Great Britain and Scandinavia. Which Soviet port handles trade with China and Japan?

2. On the map, page 45, find where the Arctic Circle passes through the Soviet Union. Find the parallel of latitude that passes through the southern part of the Soviet Union. Now refer to the map on page 44 and find where these lines pass through the Western Hemisphere.
3. On the map, page 45, find the meridian that passes through the western boundary of the Soviet Union. Because it is east of the prime meridian it is 30 degrees East Longitude. Now find the meridian that passes through the central part of the Soviet Union. What longitude is it? Next, find a meridian with the same number on the map on page 44. Through what parts of the Western Hemisphere does it pass? What longitude is it?
4. Compare the exports and imports of the Soviet Union, page 257, with the exports and imports of the United States, page 109. What similarities do you see in the exports and imports of the two countries? In what ways do their exports and imports differ?
5. The map on page 248 shows the chief industrial areas of the Soviet Union. What are the leading products of each area?
6. Compare the inland waterways of the Soviet Union (map, page 243) with those of western Europe (map, page 124) in (*a*) extent of rivers and canals, and (*b*) cities served. How do the waterways of the Soviet Union serve the industrial areas shown on the map on page 248?

Can You Find the Right Order?

Arrange the events below in the order in which they happened.

1. Peter the Great became tsar.
2. Vitus Bering discovered Bering Strait.
3. Slavic kingdom was set up at Kiev.
4. Alaska was purchased from Russia.
5. Khrushchev became dictator.
6. Stalin set up the "five-year plans."
7. Led by Lenin, the Bolshevists seized control of the government.

Making Geography Real

In 1941, during World War II, German armies suddenly invaded the Soviet Union. They moved swiftly into the Ukraine and captured the rich mining region of the Donets Basin, called the Donbas. Before retreating, the Russians blew up the Dnieper dam to prevent the Germans from using the electricity generated. They also destroyed the mines there.

After a time the Germans put the mines into working order again. They used the resources of the region for two long years. Then, as the Germans retreated before the advancing Red Army, they destroyed the mines just as the Russians had done earlier.

Long before the Russians marched back into the Donbas, they began to prepare for the rebuilding they knew would be necessary. In the winter of 1943 they cut timber in the great forests near the Ural Mountains. When the spring floods came, the timber was floated down the Volga River, transshipped on the Volga-Don Canal, then sent on the Don River to the Donbas. Trace this route on the maps on pages 243 and 248.

Then, as the summer of 1943 wore on, the Russian Army, gathering strength, stormed into the region and put the Germans to flight. When the Donbas was recaptured, it resembled an industrial graveyard. The Germans had dynamited the mines, destroyed the iron-and-steel works, and burned the towns.

Less than a week after the return of the Russian Army to the Donbas, the timber to rebuild the region arrived. Engineers and carpenters set to work immediately, repairing the mines and factories. Town after town was rebuilt, providing shelter to people made homeless by the war. Eventually the great Dnieper dam was rebuilt also, and the Donbas again became a great industrial center.

1. How did the rebuilding of the Donbas show the forethought and skill of the Russians?
2. What does this story reveal about the waste and destruction of war?

Interesting Things to Do

1. In an encyclopedia look up the names of famous Russian composers. Obtain records of their music and arrange to have a record concert in class.
2. Newspapers contain daily stories about the Soviet Union. Bring in stories that tell about living conditions, manufacturing, farming, mining, and so on. Put the best of the stories on the bulletin board.
3. Pretend that you are a member of Miss Robinson's class on a tour of the Soviet Union. Write a letter home from one of the principal cities, telling about what you have seen on the trip.

Things to Think About

1. Contrast the settlement of Siberia with the opening and settlement of our West. The Russians set up sovkhos, or government-owned farms, in Siberia and brought people from other parts of the nation to work on them. To settle our West the United States passed the Homestead Act, under which the government gave farms to persons who would live on the land for five years. Which do you think was the better plan?
2. An intelligent voter in the United States learns all he can about the candidates running for office. Would this be helpful to a voter in the U.S.S.R.? Why or why not?

Matching Causes and Results

Each event listed in the first column was the cause of an event listed in the second column. Match the causes and the results.

Causes

1. The Russian government under Nicholas II was weak and corrupt.
2. Rurik and the Eastern Slavs defeated the Siberian nomads.
3. Peter the Great traveled and studied in western Europe.
4. The Bolshevists took over the government of Russia.
5. A grand duke of Kiev married the daughter of the Greek emperor.
6. Ivan III drove the Mongols from Moscow and took control of Novgorod.
7. Ivan IV sent traders to explore Siberia.

Results

a. Russia started manufacturing and began to to take on Western ways.
b. A revolution broke out in Russia in March 1917.
c. A Communist dictatorship was established in Russia.
d. Christianity became the religion of the Russians at Kiev.
e. The foundations of the Russian nation were laid.
f. Russian expeditions reached the shores of the Pacific Ocean.
g. A Slavic kingdom was established at Kiev.

Making a Chart

Your study of this unit makes you aware of important differences between life in the United States and in the Soviet Union. Make a chart to compare and contrast the two ways of life.

Country	Property ownership	Kinds of farms	Voting	Freedom of press	Freedom of religion
Soviet Union					
United States					

Cotton growing
in the Nile Valley

Life on an oasis
in the Sahara

Tobacco growing
in European Turkey

Drilling for oil
in the Middle East

6.

North Africa and the Middle East

LET US imagine that we can go back in history to a time nearly one hundred years ago. We are in Egypt, in November, 1869. Today an important event is to take place, and a large crowd has gathered. The Suez Canal, a waterway that has been constructed across the isthmus connecting Africa and Asia, is to be opened today.

In a grandstand on the bank of the canal sit the officials who represent many governments of the world. Occupying an important place are the British, French, and Egyptian representatives.

This is the official opening of the Suez Canal, and more than one hundred ships will pass through the new waterway today. They are gaily decorated with flying flags and bright-colored bunting. As the ships draw nearer, we hear the bands on their decks playing.

The first vessel is a yacht which glides through the quiet water easily and smoothly. It is the *Aigle,* the royal yacht of France. On board is the Empress Eugenie, wife of Napoleon III, ruler of France. The people who are standing along the banks of the canal cheer and wave their handkerchiefs and hats.

At either end of the canal, ships are waiting to pass through it. From the Red Sea come vessels from India and the Far East loaded with eastern products. Sailing from ports on the Mediterranean Sea and in the Atlantic are ships carrying cargoes of manufactured goods for India. Now that the Suez Canal is open, European nations will no longer have to send their vessels all the way around Africa in order to trade with India, China, and Japan. For the English the long sea route between London and Bombay, in India, has been cut by almost five thousand miles. By shortening routes, the canal will make the world seem smaller.

On our way back to Cairo in Egypt, we discuss the canal and the people who played an important part in the ceremonies. The British were there because they had invested money in the building of the canal. They needed a short route to India.

The French were there because a French company had built the canal under the direction of a French engineer, Ferdinand de Lesseps. Ten years were spent in digging this large "ditch in the desert." The workers on the canal had to endure desert sandstorms and desert heat. They lived in tents near the canal. Water, food, and other supplies had to be brought to them from the Nile Valley, fifty miles to the west. The Suez Canal is a monument to their skill, energy, and determination.

The Egyptians were there because the canal was built through their land. Their permission had to be secured before it could be constructed.

The Suez Canal, a man-made waterway, helped to change the geography of the Middle East. It brought the Far East closer to western Europe in the time needed for travel between them. The canal brought many parts of the world closer together.

Our study of North Africa and the Middle East, between which the Suez Canal lies, will help us answer such questions as:

1. Who are the Moslems, and how do they live?
2. What is life like in North Africa?
3. Who lives in the Sahara Desert?
4. What is the Middle East like and how do its people make a living?

Ewing Galloway

All pilgrims who go to Mecca visit the building, called the Kaaba, in the center of this square. Inside they kiss a black stone, considered to be sacred because it was found by Mohammed.

1. THE MOSLEM LANDS AND PEOPLE

Across the Mediterranean Sea from Europe lies Africa. Several African countries border this sea. From west to east they are Morocco, Algeria, Tunisia, Libya, and Egypt. Find these on the map, pages 268–269. To the south of these countries is the world's largest desert, the Sahara. The countries on the Mediterranean shore and the Sahara compose the large region that is called North Africa.

Beginning with Turkey, in Europe, the Middle Eastern lands are Syria, Lebanon, Israel, Jordan, Saudi Arabia, Kuwait, Yemen, Iraq, Iran, and Afghanistan. This large region is called the Middle East because it lies between Europe and eastern and southeastern Asia, or the Far East. The region is "middle" between Europe and the Far East. All the Middle East is in Asia, except a small part of Turkey, which is in southeastern Europe.

ISLAM, RELIGION OF THE MIDDLE EAST

Most of the people who live in North Africa and the Middle East are followers of Mohammed, the great leader of the Arabs. They call their religion *Islam,* and they refer to themselves as *Moslems.* Islam means "surrender to the will of God," and Moslem means "a person who surrenders."

Mohammed, founder of Islam

Mohammed was born in Mecca, in Arabia, in 570 A.D. To the Arabs, who were worshipers of idols, Mohammed preached that there was but one God, called Allah. He said that he was the *prophet,* or spokesman, of Allah. Many Arabs believed that Mohammed was a true prophet and became his followers.

Mohammed had dreams or visions in which he felt that he was guided by Allah. On such occasions he made comments on many topics. These comments, written down by his friends after his death, were gathered together and published in a book called the *Koran*. To the Moslems the *Koran* is a holy book.

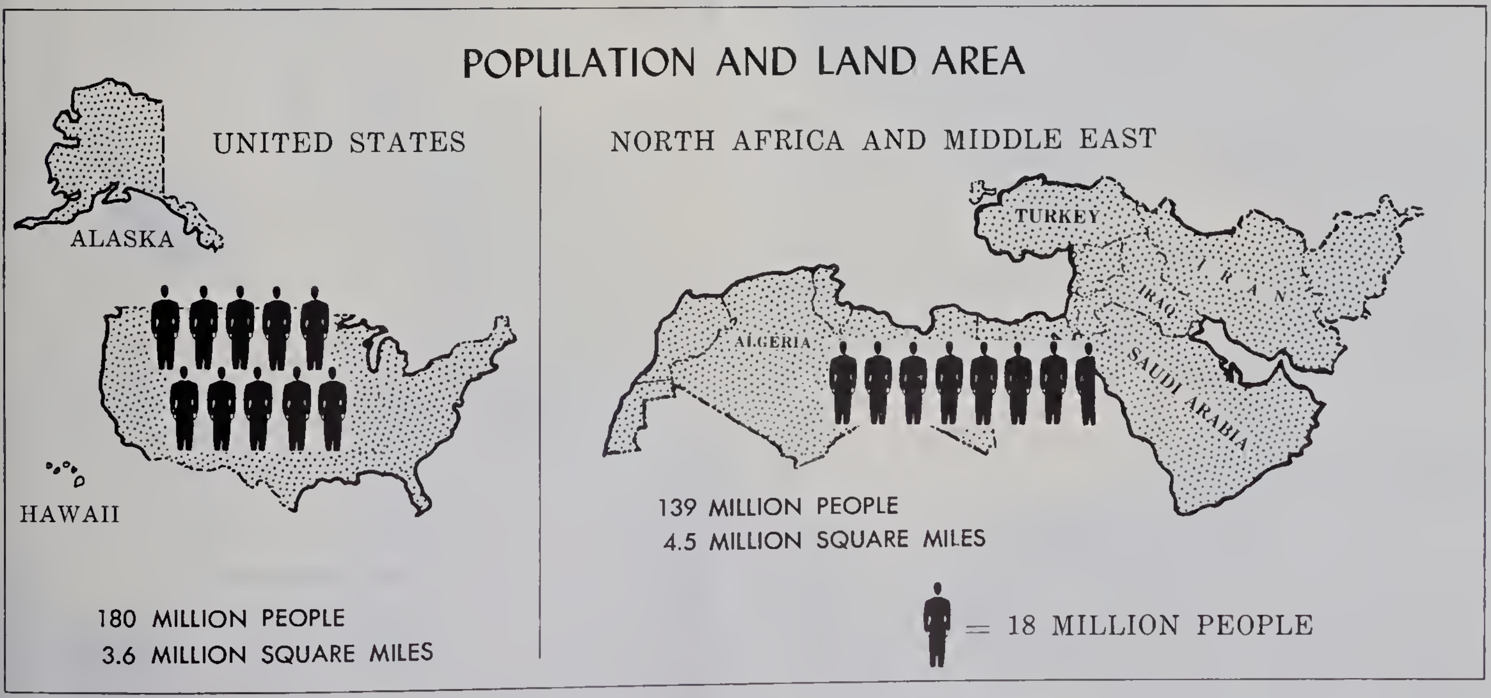
The first followers of Mohammed were a small group made up of the prophet's relatives and friends. They met secretly. When Mohammed openly urged the people of Mecca to give up their idols and to accept Islam, many people turned against him. He fled from Mecca and sought refuge in the Arab town of Medina. The people of Medina accepted the new religion and made Mohammed their governor as well as their religious leader. The year 622, the date of Mohammed's flight from Mecca, became the year One in the Moslem calendar.

The successors of Mohammed in the Moslem world are called *caliphs.* Some of the caliphs in the past, especially those of Turkey, have ruled large empires.

The spread of Islam

Mohammed commanded his followers to spread his teachings, using the sword if need be. Arab armies conquered Mecca during Mohammed's lifetime. After his death they set out to conquer Arabia and neighboring lands. Some Arab armies moved into Persia (now called Iran). Others overran Egypt and then pushed westward into North Africa. Under the influence of their conquerors, most of the inhabitants of North Africa and

Which is larger, the United States or North Africa and the Middle East? Which has a greater population? Why do parts of North Africa and the Middle East have a low population density?



of the Middle East became Moslems. Thus the religion of a small group in Arabia spread over a very large area.

Following their conquest of North Africa, the Arabs crossed the Mediterranean Sea into Spain. After they had taken Spain, they moved into France. But an army of Franks, under a Christian leader, met the onrushing Arabs at Tours, in southern France, and defeated them. This was in the year 732, just one hundred years after the death of Mohammed. The Moslems retreated to Spain.

The Moslems, who were called Moors in Spain, remained there for hundreds of years. They built up a fine civilization in Spain. But Christian armies defeated the Moors in northern and central Spain and pushed them southward on the peninsula. Finally, in 1492, the Moors were driven from their last stronghold in southern Spain. They retreated across the Mediterranean Sea to North Africa, where their ancestors had lived.

The Turks, who invaded the Middle East from Turkestan in central Asia, also became Moslems. Like the Arabs, the Turks were forceful in the spread of Islam. They overran western Asia, then captured Constantinople (now called Istanbul), and moved into southeastern Europe. They closed the trade routes to the Far East when they captured Constantinople in the year 1453. The Turks extended their empire farther and farther into Europe. But in 1529 they were finally stopped by Christian armies at Vienna, and the Turks retreated to Constantinople.

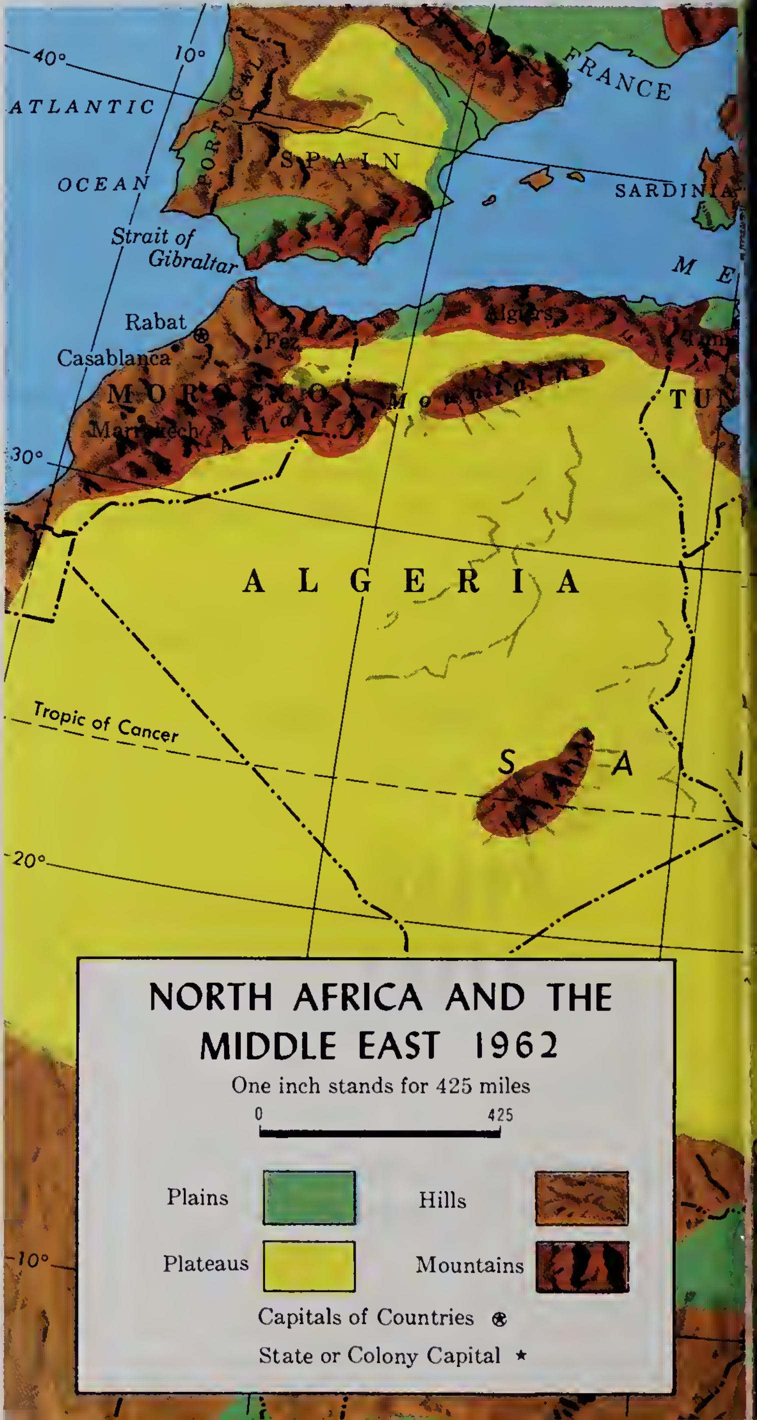
ISLAM TODAY

Today most of the people of North Africa and of the Middle East, except for Israel, are Moslems. The people who live in the Sahara and in the dry lands of inner Asia are also Moslems. The Moslem area continues into the peninsula of India. Pakistan is a Moslem land.

South of the Sahara some of the people are followers of Mohammed. Parts of Indonesia, in the Far East, are also Moslem lands.

Moslem ways of living

The city of Mecca, Mohammed's birthplace, is a holy place to all Moslems. Every Moslem hopes sometime to make a pilgrimage to Mecca. Medina, where Mohammed

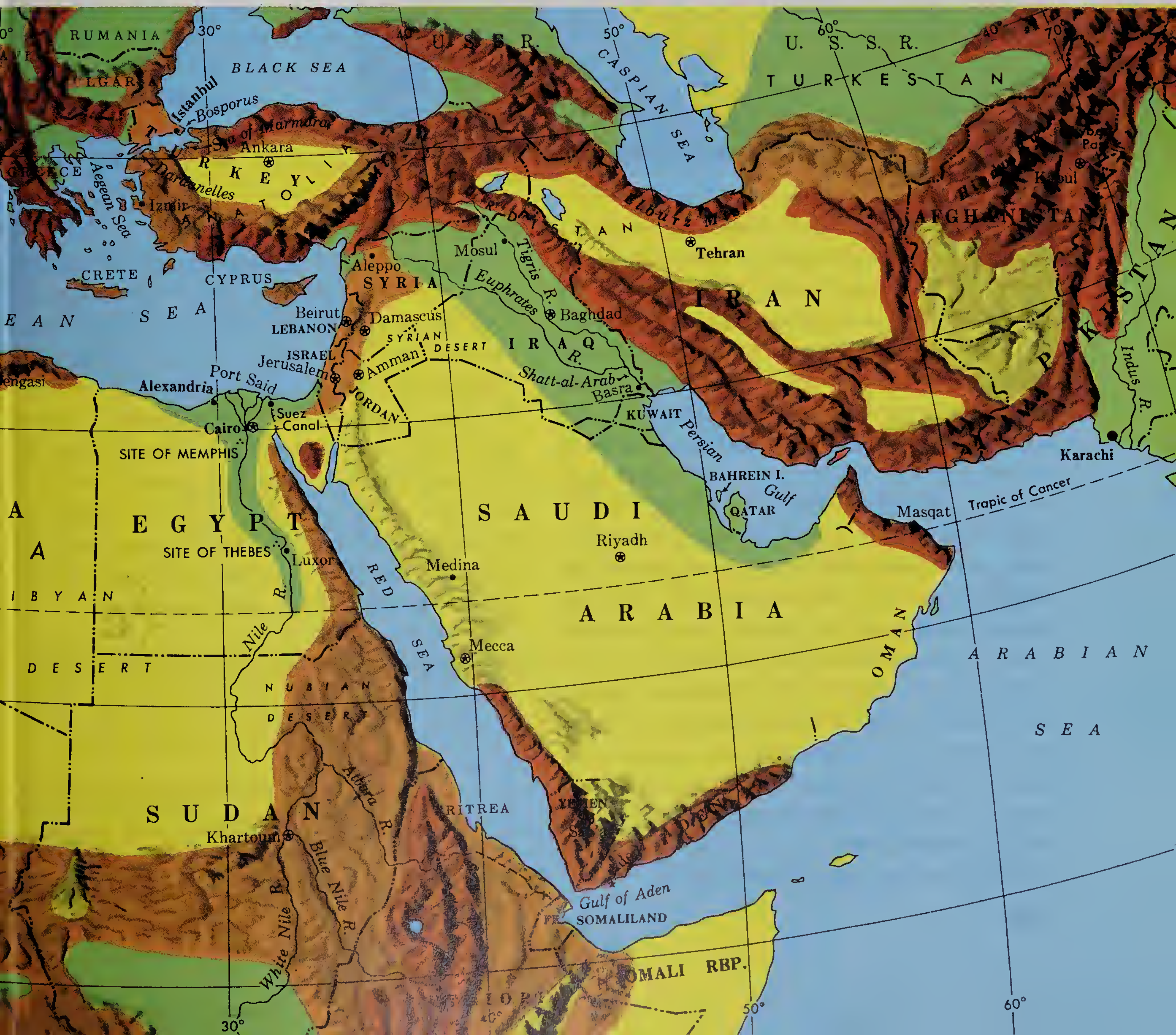


spent the latter part of his life, is also a holy city to Moslems. There are other holy places in Islam, too. Jerusalem is one of these holy cities because Moslems honor Jesus as a prophet.

Moslems worship in *mosques*. Every city, from Morocco to Pakistan, has its mosques and many of them. Most mosques are built with a dome and with tall, slender towers, called *minarets*. The minarets have balconies attached to them. From these balconies the Moslems are called to prayer five times daily. Moslems kneel wherever they are and face toward Mecca as they pray.

In the past the women in Moslem lands were seldom seen outside their homes. When they appeared in public, they covered their faces with veils. They had few rights or privileges. But these customs are changing, and Moslem women are enjoying more freedom today in some of the Moslem nations.

Mohammed forbade his followers to eat or drink certain things. No devout Moslem eats pork. The result is that pigs are not



This worker on a farm in Saudi Arabia is spraying a large field of lettuce with a substance used to kill insects. Irrigation gives the water needed to grow many of the farm products of Saudi Arabia.

Arabian American Oil Company

raised in Moslem lands. Moslems are also forbidden to drink wine or other alcoholic beverages, so there are few vineyards in Moslem countries. Where grapes are grown, they are eaten fresh or are dried into raisins.

In nearly all parts of the Moslem world the climate is dry. Only where there is water for irrigation can the land support many people. But on most of the land only sheep, goats, and camels can live on the scanty vegetation. Lamb, mutton, and goat meat are important foods throughout the Middle East. The Moslem religion requires that animals must be freshly killed if their meat is to be eaten at certain feasts.

During World War II, President Roosevelt went to Arabia on an American battleship. The ruler of Saudi Arabia joined him on the ship for a meeting that lasted several days. To provide the proper food, the battleship carried live sheep so that fresh meat could be served to the Arab guests.

Moslem unity

Although the people are scattered over a huge area and belong to many different nations, they are closely united by their religious faith. That is why we often speak of a "Moslem world" as part of our greater world. Moslems are also united under the caliph and other religious leaders. One group of Moslems, who are trained in Islamic law and religion, make up the "Supreme Spiritual Committee of Islam." This group of high officials meets in Cairo. In their religion the people of the Middle East are united.

Do you know—

1. How did the Middle East get its name? What countries does this region include?
2. Who was Mohammed?
3. What is Islam? How did Islam spread?
4. Why are Mecca and Medina holy places to Moslems?
5. What does "Moslem world" mean?

2. THE LANDS OF NORTH AFRICA

North Africa stretches 2600 miles in an air line from the Atlantic Ocean on the west to the Suez Canal and the Red Sea on the east. This is about the same distance as from San Francisco to New York City. Each of the five countries of North Africa extends from the Mediterranean Sea southward into the desert lands of the Sahara.

OLD CIVILIZATIONS IN NORTH AFRICA

North Africa has a long history which goes back many thousands of years. Here several early civilizations grew up.

Early communities

We know that there were civilized people living along the Nile River in Egypt as long ago as 4000 B.C. These early Egyptians worked in metals. They had developed a fairly accurate calendar. They had a written language. Their public buildings were built of stone, on which inscriptions were carved. Scientists have learned to read the inscriptions, and from them have pieced together much of the history of these people. Their descendants are the present-day Egyptians.

Farther west, the city-state of Carthage on the Mediterranean Sea was founded by the Phoenicians. Several hundred years before Christ, Carthage controlled the western part of the Mediterranean. During this time the Romans, across the sea in Italy, were growing in power. Carthage and Rome fought a long series of wars. Today nothing remains of Carthage, for Rome destroyed it in 146 B.C.

Arabs in North Africa

The Arabs invaded North Africa in the late 600's and early 700's. Many of them settled there and intermarried with the people. Today the North Africans, except the people of Egypt, are called Arabs. Most of them are followers of Mohammed.

TWO KINDS OF CLIMATE

The climate of North Africa is of two kinds. One is the Mediterranean type. The other is a desert climate. See the map on pages 52–53.

Lands with a Mediterranean climate have sunny, dry summers and are warm or hot during this season. In the winter there is much rain and the lands are green. During the summer the lands are dry and brown, unless irrigated. The Mediterranean climate prevails in the lands between the Mediterranean Sea and the Atlas Mountains.

South of the Atlas Mountains the lands are very dry. Little rain falls at any time of the year. Summer temperatures are very hot. On the map you can see how the coast of Tunisia juts out into the Mediterranean Sea. East of Tunisia, in Libya and Egypt, the desert reaches to the Mediterranean Sea. Few people live in the desert climates except in oases or in the irrigated Nile Valley.

COUNTRIES OF NORTHWEST AFRICA

Morocco, Algeria, and Tunisia are western Mediterranean lands. From the map you see that Morocco also has a coast on the Atlantic. The climate near the coast of these three countries is like that of the coastal area of near-by Spain or Italy. Algeria and Tunisia extend south of the Atlas Mountains.

Morocco

Morocco is four times larger than Pennsylvania with about the same population. It is closer to Europe than is any other African country. The Atlas Mountains cut across Morocco from southwest to northeast. Another mountainous region runs along the northern coast a little way inland from the Mediterranean Sea. Between the two mountainous regions lies a fertile plain broken by valleys and low hills.

Mediterranean crops are grown in Morocco. Fields of barley and wheat are green during the winter rains and are harvested before the dry period of summer. Farmers who live near streams irrigate their fields during the dry summer season. They grow vegetables and fruits. Sheep, goats, and some cattle graze on the green winter pastures. In the summer these animals obtain what food they can from the dry pastures or are driven to the mountain grasslands. Olive trees yield olives for oils and fats, both for home use and for export. Cork-oak trees, like those in near-by Spain, provide cork, which is a valuable export.

Casablanca, on the Atlantic, is Morocco's most important seaport. With 700,000 inhabitants, it is now the largest city in Morocco. Parts of the city are very new. Great, white apartment buildings face the ocean along palm-shaded streets. They contrast sharply with the buildings in the old, crowded part of the city. Fez, which is a sacred city of the Moslems, has fine mosques.

Many Moroccans make a living by fishing. Sardines are canned in great quantities in Casablanca and are exported from that city.

Morocco has important minerals. Among these are deposits of coal, iron ore, manganese, and phosphate. If mines are opened there, the income will help to raise the standard of living of the people.

Wild tribesmen, called Berbers, live in the hills and mountains of southern Morocco. The Berbers are the descendants of the early people who inhabited the region before the time of the Arab invasions. They live today much as their ancestors did more than a thousand years ago. The Berbers, however, are Moslems today.

Today Morocco is independent. For forty-five years the French and Spanish ruled different areas of Morocco. In 1956, when French Morocco was given its freedom, its ruler, called a *sultan,* demanded that Spanish Morocco be added to French Morocco. Spain agreed. The sultan, who is both a religious and political leader, then became king. Today Morocco is a constitutional monarchy with its capital at Rabat.

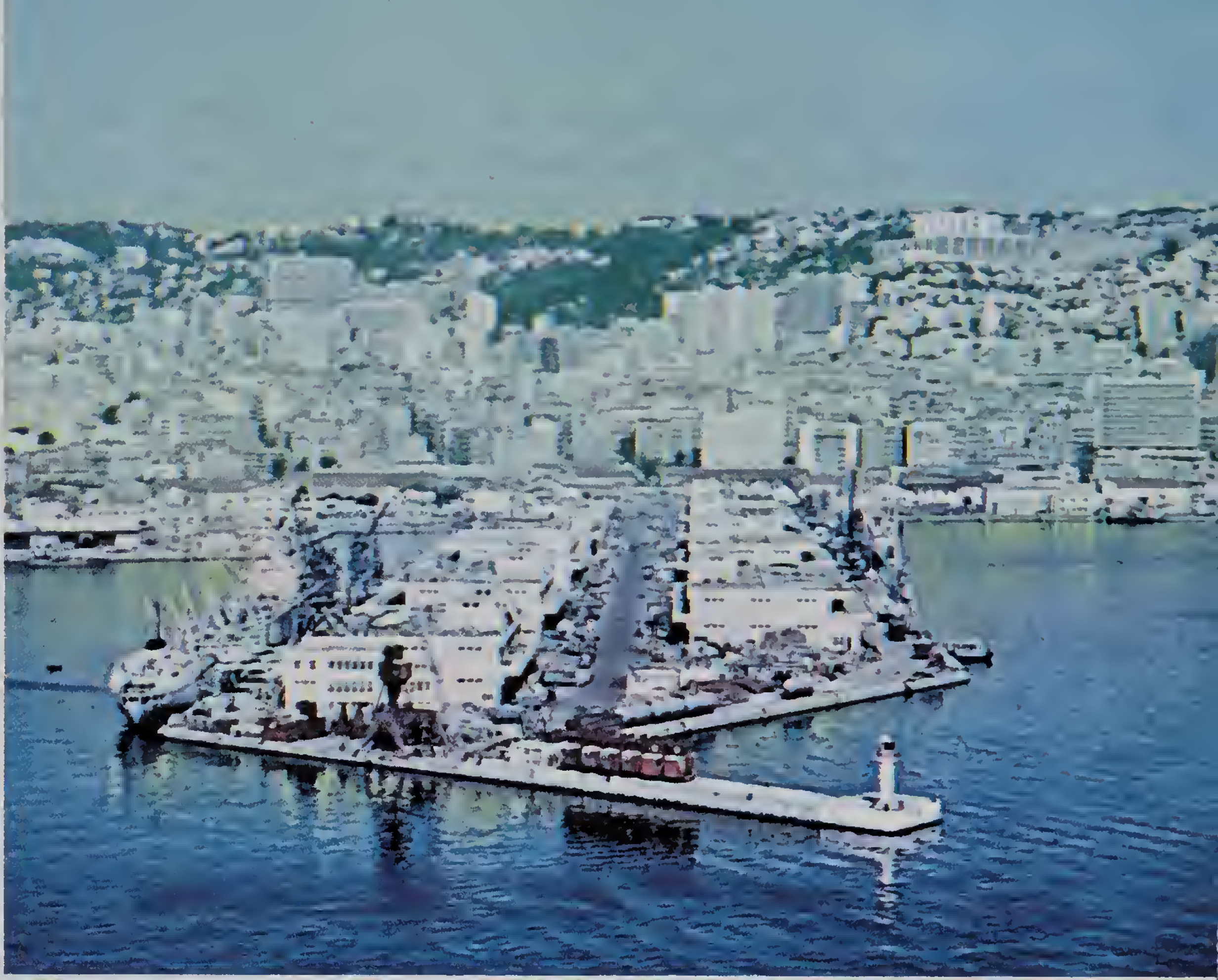
Algeria

Algeria is more than three times as large as Texas, and it has a little larger population. Nine out of ten persons live in northern Algeria. The southern two thirds of Algeria lies in the Sahara. Algeria has less land for settlement than does Morocco because more of its area is mountainous or desert land.

During the early 1800's the coast of North Africa was the home of the Barbary pirates. Barbary comes from Berber, the name of the desert tribesmen of North Africa. The pirates sent warships into the Mediterranean Sea to rob trading vessels and to capture prisoners, whom they sold as slaves. European nations paid tribute to the pirates to keep their ships free from attacks.

For a time the United States also paid tribute to the pirates. But President Jefferson decided to take action. He sent warships to the Mediterranean. After meeting United States ships several times, the Barbary pirates made peace. But a few years later Algeria began to make trouble again. On this occasion the United States sent a fleet of ten

The city of Algiers, the capital of Algeria, has many modern buildings as this picture shows. The Arab part of the city is on the slopes above the French quarter. Algiers has one of the best ports on the Mediterranean Sea.



French Embassy, Press and Information Division

warships into the Mediterranean to restore order. After this the pirates stopped molesting ships, and there was freedom of the seas in this region again.

Some years later, however, the ruler of Algiers insulted the French representative. The French took offense at this and sent a fleet to bombard the city. They landed an army and took control of the region.

Today Algeria has 9,000,000 Arabs and 1,000,000 persons of French descent. When the Arabs began to demand independence, the French settlers objected. They wanted Algeria to remain a part of France. Civil war resulted. It lasted seven years. In 1962 Charles de Gaulle, President of France, eventually succeeded in establishing the independence of Algeria. The Arabs were free to set up their own government.

The Arab farmers of Algeria raise the same kind of crops and animals as do the Moroccans. Algeria has extensive vineyards, most of which are owned by French farmers who have moved to Algeria. The wine made from the grapes is exported to France. Wine makes up half of Algeria's exports. Oranges, olive oil, and wheat are also shipped to France. Machines and other Algerian imports are mainly brought in from France.

Algiers, the capital, is the size of Oakland. It has an excellent harbor. Oran also has a good harbor. From these cities iron ore, phosphates, and farm products are shipped across the Mediterranean to the seaport of Marseille, in southern France.

Tunisia

Tunisia is the size of Louisiana and has the population of Georgia. The nation, which was long a French possession, gained its independence in 1957. The capital of the new republic is Tunis.

In the days when Tunisia and Algeria were a part of the Roman empire, the Romans considered these lands important food-producing areas. They were called the granary of the empire. Wheat, barley, and olive oil are still important products. With phosphates, a kind of mineral used for fertilizer, they are the chief exports of Tunisia.

The map shows how close one part of Tunisia is to the island of Sicily and to the small island of Malta. About 250,000 people who have come from Italy or Malta live in Tunisia. Many of them own vineyards. But these people, who are Christians, are less than 10 per cent of the total population.

The Romans founded more than forty cities in North Africa. Many of these cities were in Tunisia. These cities were later captured by the Arabs. Today the domes and minarets of mosques rise above the other buildings in these cities.

LIBYA, A DESERT LAND

Two very small coastal regions of Libya, at Tripoli and at Bengasi, have a Mediterranean climate. Nearly all Libyans live in these regions. The rest of this large kingdom is a desert area. Oil has been discovered in the desert, and wells have been drilled.

The coastal region of Libya became the site of great battles in World War II. The Allies fought the Germans there to keep them from moving into Egypt and taking possession of the Suez Canal. For a time Italy controlled Libya, and some Italians moved there. After World War II, however, they returned home. Libya is almost entirely an Arab and Moslem region again. The country became independent in 1952. It is ruled by a king, and it has two capitals, Tripoli and Bengasi. Both of these cities are seaports and trading centers.

EGYPT, OLD AND NEW

The total area of Egypt is that of Texas and New Mexico combined. But this means little in a desert land. The usable area, where people can live because there is water, is only as large as Maryland plus half of Delaware. Into this usable area nearly 25,000,000 people are crowded. If the inhabitants were evenly spread throughout Egypt, there would be fewer than fifty persons to each square mile. But the Nile Valley, which has more than 1400 persons to each square mile, is one of the most densely populated places on earth. Nearly all Egyptians make their living by farming.

Egypt's climate

Egypt has a desert climate. In the south only about one inch of rain falls each year. In Cairo the rainfall averages only about four inches, and in Alexandria eight. More than twenty-five inches of rain are needed to grow crops in a hot climate. Summer temperatures rise to more than 100° during the day. Temperatures as high as 120° to 130° have been recorded in the summer. If Egypt did not have the Nile, few could live there.

Egypt's past

The ancient Egyptians, as we know, developed a civilization in the Nile Valley thousands of years before Christ. They could do this because the land along the Nile was fertile and well-watered. They raised fine crops. They were protected from invaders by deserts to the east, west, and south, and by the Mediterranean Sea to the north. With a good supply of food and protection from enemies they were able to engage in peaceful pursuits.

The Egyptians built fine buildings, many of which still stand. The inscriptions on the sides of these buildings picture the life of the Egyptians and record historical events. Some papyrus rolls, which have been preserved in the dry climate of the valley, contain writing that is still legible. From these records we know much about the life of the early Egyptians.

The Egyptians were expert in the art of embalming. The embalmed bodies, called mummies, of some of their rulers have been preserved in tombs for many hundreds of years. The mummies may be seen in museums today.

The use of metals and of writing in early Egypt began about 4000 B.C. The earliest of the pyramids, built as burial places for their rulers, called pharaohs, were constructed about 2900 B.C. The capital of this first Egyptian empire was at Memphis, near Cairo. Find the site of Memphis on the map on pages 268–269.

A later Egyptian empire grew up at Thebes, far up the Nile River. Find the site of ancient Thebes on the map. The ruins of the magnificent temple of Karnak still stand at Thebes. Part of this temple was hollowed out of the rock walls of the cliffs along the Nile Valley.

The carvings on monuments at Memphis and at Thebes tell us much about early life in the Nile Valley. They show such activities as farmers harvesting grain, soldiers ready for war, and pharaohs and warriors riding in chariots.

The Arab invaders moved into Egypt in 641 A.D. and brought Islam as a religion to the Egyptians. The Egyptians are not Arabs, but because it is a Moslem land Egypt considers itself part of the Arab world. Cairo, its capital, is a center of Islam. It is the home of one of the leading Moslem universities. The city contains hundreds of mosques.

It has been said that Egypt is the Nile, and the Nile is Egypt. Each year, beginning in June, the Nile, as it flows across the desert, spreads out beyond its banks. It changes the land on either side into a shallow lake. This yearly flooding of the Nile takes the place of rain in Egypt. After a few weeks the water recedes, leaving damp, rich soil in which crops can be planted. The overflowing of the Nile changes the land near the river into a fertile region. There the early Egyptians farmed, and there the Egyptian of today still farms.

The influence of the Nile

In Egypt not only farmers but city dwellers also depend upon the Nile. This is true even in the Suez area, for a canal from the

Scientists examine an Egyptian mummy found in one of the ancient pyramids near Cairo.

Acme

E. Morton, American Museum of Natural History

EGYPT, OLD AND NEW

The Aswan Dam, over a mile long, supplies water to irrigate millions of acres of Egyptian farm land each year. Other dams on the Nile River also store water for irrigation of the fields.

Ewing Krainin

The temple of Karnak, left, was built by the ancient Egyptians thousands of years ago. Note the hieroglyphics carved on the pillars.

Below are Cairo's domed mosques with slender minarets. From these minarets the Moslems are called to prayer five times each day.

Ewing Galloway

Nile carries fresh water to the cities along the Suez Canal.

The part of Egypt that extends from Cairo to the sea is called Lower Egypt. This is the fan-shaped Nile Delta, which is about 100 miles in width. Upper Egypt extends for more than 700 miles southward from Cairo. The settled land of Upper Egypt is like a narrow green ribbon along the river. This fertile area is nowhere as much as ten miles wide. The people of Upper Egypt live in this area with the desert on either side.

Cairo is located at the meeting point of Upper Egypt and the Nile Delta. It is the largest city in Egypt.

The Nile starts in the great lakes of central Africa, nearly 4000 miles from its mouth in the Mediterranean Sea. The White Nile flows out of the lakes. Because the lakes are always full of water, the White Nile has an even flow.

The Blue Nile and the Atbara rivers are eastern tributaries of the Nile which come from the mountains of Ethiopia. This land has a rainy season and a dry season. During and after the rainy season the Blue Nile and the Atbara are filled with water. When their waters are added to the White Nile, the river rises and floods Egypt. In the dry season in Ethiopia the Blue Nile dwindles to a group of pools, and the Atbara dries up altogether. During this time, nearly all the water in the Nile as it flows through Egypt comes from the White Nile.

Methods of irrigation

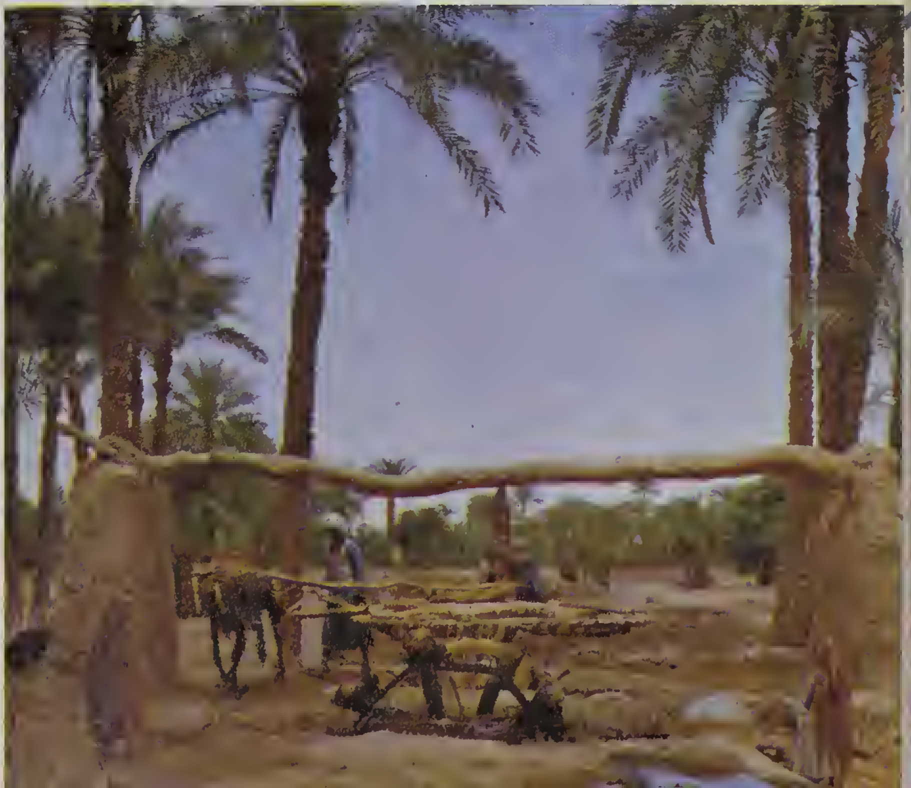
In a rainless land irrigation must be practiced if crops are raised. The oldest way to irrigate is to dip the water from the river with a pail or a bag made of skin and to carry it to the fields. To lift the water, a *shadoof* is often used. A shadoof is a long pole to which a pail or bag is fastened. The pole is lowered over a cross bar to dip the pail or bag into the water. A stone weights the short end of the pole, making it easier to lift the water. Today farmers who irrigate their land in this way have a donkey or ox to help them. Troughs have been dug which carry the water to the fields.

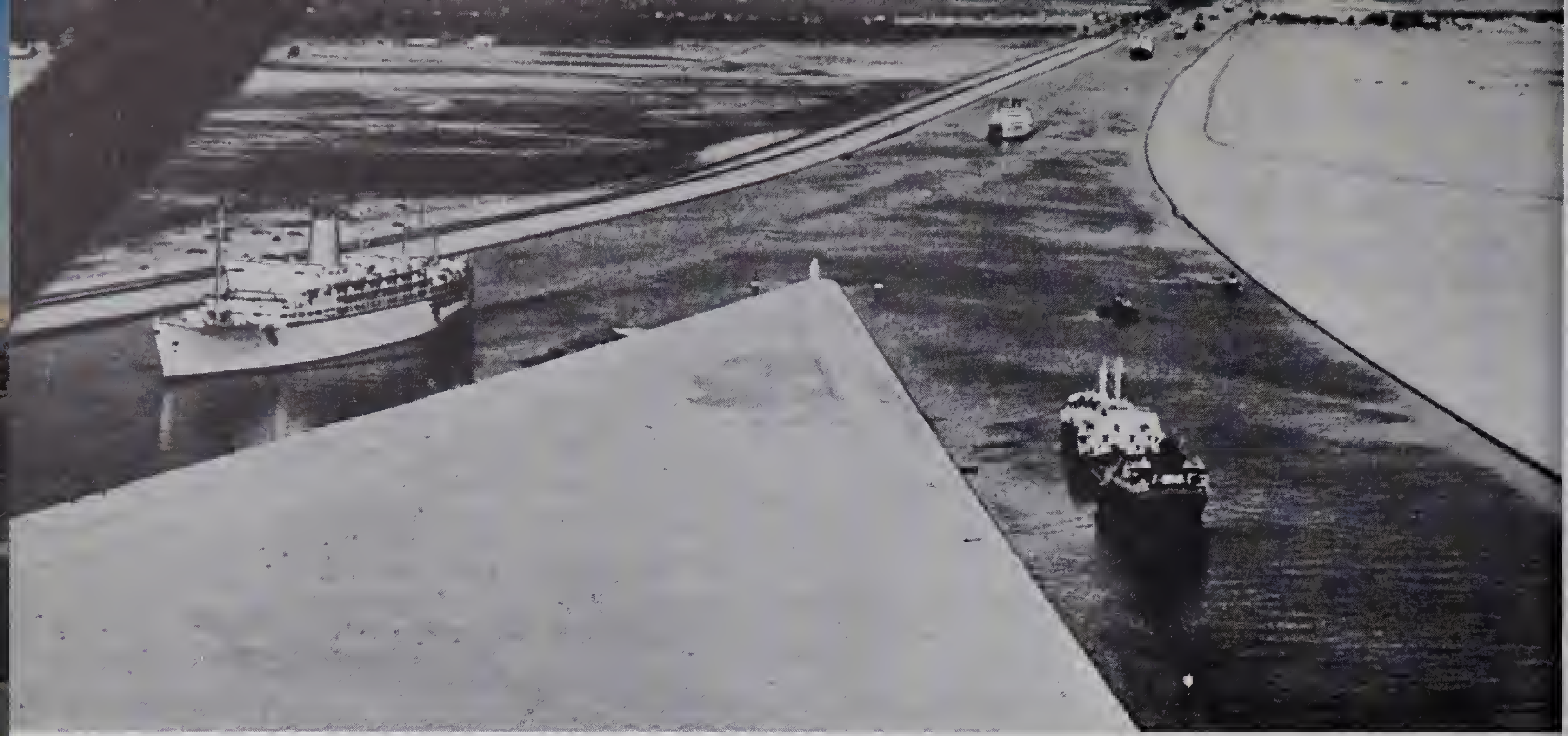
The second way by which crops are irrigated in this rainless land is by means of the Nile flood. The Nile begins to rise in June and soon covers the land on either side of its banks. After the flood is over, the farmers plant their crops. Enough moisture remains in the ground for one crop of grain, cotton, and vegetables to be grown each year.

But the climate of Egypt permits crops to be grown throughout the year because there is no frost. So a third way to water the land, called *perennial irrigation,* has been developed. Perennial means "through the year." Perennial irrigation began about sixty years ago when the British, who then controlled Egypt, built a great dam at Aswan. The dam holds back the flood waters and stores them

The farmer below is using an ancient kind of water lift, a shadoof, to water his fields.

Edwards from FPG

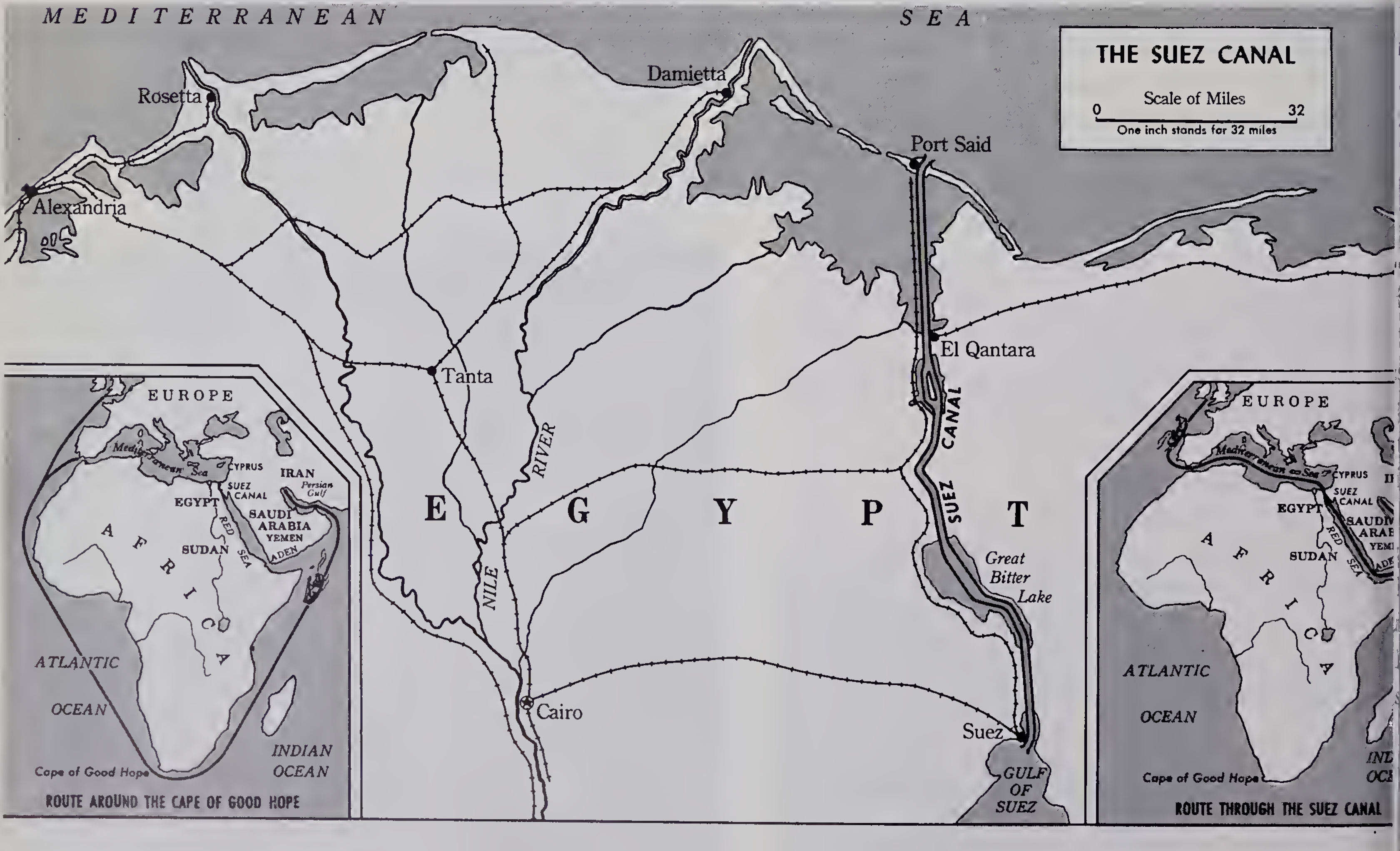




Wide World Photos

The Suez Canal, shown above, is as important today as when it opened in 1869. Ships of many nations use it. Three out of every four ships going northward carry oil to European nations.

These maps show how the Suez Canal shortened travel between Europe and Asia. On the small maps compare the length of the route around Africa with the route through the Suez Canal.



in a great reservoir. The waters are released gradually, in order that they can be used throughout the year. The Egyptian government is now building the dam higher so that it will hold back more water. When this is done, the Nile will no longer overflow its banks. The farmers will then be able to grow three crops of wheat yearly and many crops of vegetables.

Farming in Upper Egypt

Upper Egypt contains very small farms. Most of them are smaller than a football field. One in ten is larger than two city blocks.

Egyptian farmers live in villages. In the evening when their work is done, they return from their fields to their palm-shaded homes. Most farmers use donkeys in their fields.

Corn, wheat, rice, sugar cane, and cotton are the principal crops. Beans and onions are the principal vegetables. Cotton is the farmer's money crop. Date-palm trees, coconut trees, and lemon trees grow near the river, where they have their roots in moist ground. Products not needed at home are shipped to Cairo by railroad or by sailboats.

Farming in the Nile Delta

The fan-shaped Nile Delta has been farmed extensively for only about one hundred and fifty years. Before that time the delta land was too wet to cultivate because it was swampy. With modern pumps it became possible to drain the land. However, after the delta was drained, the crops planted on it had to be irrigated.

The Nile Delta is a land of large cotton plantations owned by wealthy landowners. Many workers are employed on the plantations. The cotton raised on the delta has a long fiber which makes better cloth than short-fibered cotton does. This long-fibered Egyptian cotton brings a good price on the world market. Most of it is exported to the textile mills of western Europe. Only a little is used in the factories of Cairo.

Cotton is Egypt's greatest export crop. Factories have been built where cotton is made into cloth and clothing. Some of the cloth is exported, too.

Egypt's cities

Cairo, which has about 2,800,000 people, has an important location. It lies between Upper Egypt and the delta. It became Egypt's capital in 1863.

Alexandria, a seaport at the western edge of the delta, has 1,335,000 inhabitants. It is an old city, for it was founded in 336 B.C. But it is also a modern city, with new office buildings and apartments. Alexandria exports much cotton.

Port Said, Ismailia, and Suez are cities on the Suez Canal. The activities of these Egyptian cities are associated with the movement of ships through the busy canal.

Today Egypt considers itself a leader of the Arab countries. This nation hopes eventually to unify the Arab countries in order to strengthen their defenses and increase their influence. In 1958 a beginning was made when Syria and Egypt formed the United Arab Republic. But in 1961 Syria withdrew and became independent again.

Do you know—

1. What old civilizations grew up in North Africa?
2. What kinds of climate does North Africa have?
3. What crops are raised in Morocco? In Algeria? In Tunisia?
4. Why has the Nile River been important to Egypt? How do dams increase its value?

McGinnis from Monkmeyer

This Arab and his camel are resting a moment in the Sahara. Most of the desert is like this—miles of sand with no roads. Note the small patch of grass. Camels eat it, but horses cannot.

3. THE WORLD'S LARGEST DESERT

A desert that is almost as large in area as the United States stretches across North Africa from the Atlantic Ocean to the Red Sea. This desert, the largest in the world, is called the Sahara.

WHAT THE SAHARA IS LIKE

The dry and brown lands of the Sahara are broken only by the ribbon of greenery along the Nile, and, here and there, by small oases. The desert forms a barrier between North Africa and Central Africa. We will learn more about the effect of the desert as a barrier in the unit on Africa.

Desert dwellers

The people of the desert have different ways of living. One large group of these desert people are called *pastoral nomads*. Pastoral refers to shepherds, and a nomad is a person with no fixed home. Pastoral nomads, therefore, are herdsmen who wander from place to place. They are in search of pasturage for their camels, sheep, or goats. They live in tents.

Another group of people who inhabit the Sahara lives on oases, or watered spots, in the desert. They have permanent homes there.

After oil was discovered in the Sahara in 1956, other people went to the region to work in the oil fields. Iron ore, coal, and uranium have also been discovered in the Sahara.

Pastoral nomads

The nomads of the desert depend upon their camels, sheep, and goats for a living. The animals eat desert grasses and shrubs. The pastoral nomad pitches his tent wherever he can find pasture for his flocks. Pastoral nomads travel in families or groups. In the summer they move up the mountains in search of grass. They return to lower lands during the cooler season of winter.

Camels can travel long distances between drinks, and their padded feet are not cut by sharp stones. Sheep and goats can live on poor pastures. From their animals the nomads obtain milk and meat for food and skins, hides, and wool for tents and clothing.

Nomads fill their water bags from springs in the desert. Sometimes they camp near an oasis to obtain water and to trade animal products for products raised by the oasis dwellers. Nomads near the Nile visit it to get water for themselves and their flocks.

The people of the oases

Some parts of the Sahara have many oases. Other parts have none. Most oases, and their spots of green land, cover only from one to five square miles. There are, however, a few large oases in Algeria south of the Atlas Mountains. An oasis supports a great number of people for its size. Some are even more densely peopled for each square mile than is the Nile Valley. Oases are separated by vast areas of desert where pastoral nomads roam.

To the desert traveler an oasis looks something like a forest as he moves toward it. The date palms, which are thickly crowded together, shade the vegetable gardens and the flat-roofed houses. An oasis dweller measures his wealth by the number of trees he owns. A man who owns several date palms is rich. A poor man may own only one tree.

The people of the oasis supply dates, palm wood, and vegetables to the nomads. In exchange they obtain milk, meat, and animal products. In the past the nomads often raided an oasis and took what they wanted.

The nomads are descendants of the original Berbers and the Arab invaders. The oasis people are mixtures of these same peoples and of Negroes from south of the Sahara. The southern oases contain more people of Negro blood than the northern ones, for they are closer to the Negro lands. Pastoral nomads and the oasis dwellers are unified in their religion, for all are Moslems.

Do you know—

1. How do pastoral nomads earn a living?
2. What products do oasis dwellers trade?
3. What unifies the oasis dwellers?

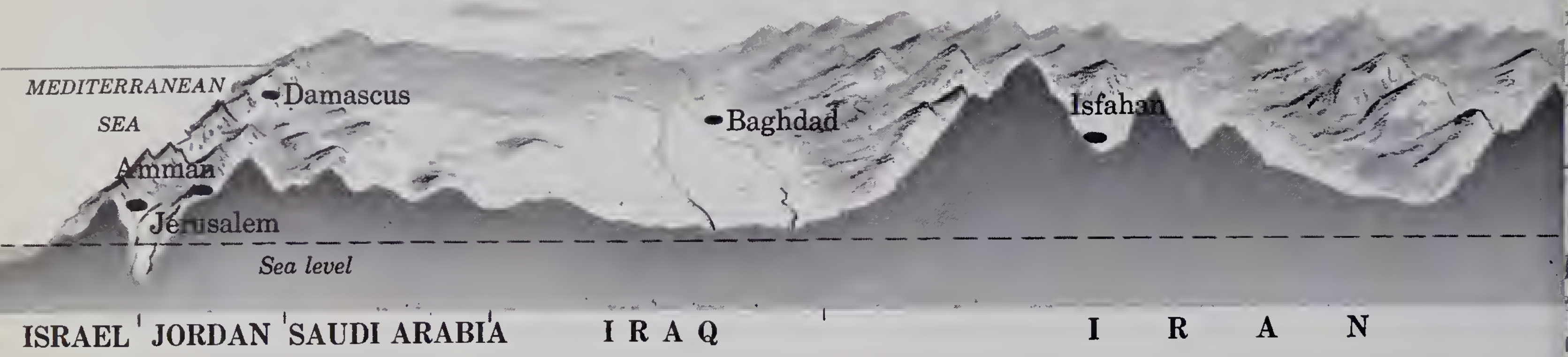
Words and Terms to Remember

caliph
minaret
mosque
sultan
Koran
prophet
Moslem
shadoof
Islam
perennial irrigation
pastoral nomads

A Matching Game

Number a paper from 1 through 11. After each number write the word or term from the list above which matches the definition.

1. A tall, slender tower on a Moslem place of worship
2. A way to water the land that can be used throughout the year
3. The religion of the followers of Mohammed
4. A follower of Mohammed
5. The title used by the successors of Mohammed
6. A Moslem place of worship
7. A Moslem who is both a religious leader and the ruler of a nation
8. A person who speaks for God under divine guidance
9. The holy book of the Moslems
10. A device used to lift water in irrigating land in Egypt
11. Herdsmen who move from place to place on the Sahara with their flocks



4. THE LANDS OF THE MIDDLE EAST

The Middle East is a large area, but it is not densely populated. Except for Israel and some of the inhabitants of Lebanon and Syria, its people are Moslems. The area, like North Africa, contains regions with a Mediterranean climate. It also contains very large areas of dry and desert land. From the Mediterranean Sea and the southern shores of the Black Sea the dry lands stretch eastward across Arabia to Iran and beyond.

EARLY CIVILIZATIONS IN ASIA

Three rivers of the Middle East are like the Nile in that they maintain their flow of water all across the deserts. These are the Tigris, the Euphrates, and the Indus (see map, pages 268–269). The Tigris and the Euphrates join to form the Shatt-al-Arab, which flows into the Persian Gulf. The Indus flows into the Arabian Sea, an arm of the Indian Ocean.

Like the Nile Valley, some valleys in the Middle East were also centers of very early civilizations. One of these valleys lay between the Tigris and the Euphrates. This region was called Mesopotamia, a word which means "the land between two rivers."

Cities on the Fertile Crescent

A curved belt, or crescent, of well-watered land reaches from the head of the Persian Gulf through Mesopotamia to the Mediterranean Sea. This area is called the *Fertile Crescent*. Nearly all of the cities of the Middle East that were early centers of civilization grew up in the Fertile Crescent.

The sites of some of the ancient cities of the Fertile Crescent are shown on the map on page 23. Nineveh, Assur, Babylon, and Ur were each important cities of Mesopotamia at different times. These cities have been uncovered by archaeologists. In this, the situation is unlike Memphis and Thebes in Egypt, whose ruins were always in sight. The Fertile Crescent curves around the Syrian Desert to the eastern end of the Mediterranean. The city of Damascus still stands and is the oldest continuously inhabited city in the world.

Ancient trade routes

The ancient trade routes, traveled by camel caravans, followed the Fertile Crescent because food and water were easily obtained along its path. In this way the traders avoided crossing the Syrian Desert to the south and the mountains to the north and east. Even today important routes follow the crescent from Jerusalem and Damascus to Mosul and Baghdad.

TURKEY, A CHANGED COUNTRY

Far to the north, in Turkey, the map on pages 268–269 shows two straits. These two straits, called the Dardanelles and the Bosporus, are important waterways. The map also shows the Suez Canal. The canal is man made, but the straits are natural features.

Turkey is as large as the combined areas of Texas and Maine. But the population of Turkey is three times greater than that of Texas alone.

The importance of the straits

The Bosporus and the Dardanelles, together with the Sea of Marmara, form a water passage from the Black Sea to the Mediterranean Sea. The narrow Bosporus is spanned by a bridge which connects Europe and Asia. Thus two routes cross at the Bosporus, the water route through the strait and the land route from Europe to Asia. Such a crossing of routes is a fine place for a city. Hundreds of years ago Constantinople (now called Istanbul) grew up on the European side of this crossing. Later the city expanded to the Asiatic side as well.

The Bosporus is twenty miles long and less than two-and-one-half miles wide at its widest point. Trains from western Europe on their way to Baghdad cross it on a ferry. Great buildings stand on either side of the strait. Hundreds of boats come and go in the famous harbor of the Golden Horn, a crescent-shaped bay at Istanbul.

The Strait of the Dardanelles is also close to Istanbul. This strait is forty miles long and only three fourths of a mile wide at its narrowest place.

Ewing Galloway

This photograph shows the Bosporus, the strait that divides Europe from Asia. The photograph was taken from the European side. On what continent is the village across the water? Locate the Bosporus on the map on pages 268–269.

Nations have fought for control of these straits for hundreds of years. In 1453 the Turks gained possession of them and the surrounding region. The Russian tsar's armies tried on several occasions to capture the straits. Each time they were beaten back, but not by Turkey alone. For Great Britain and France joined Turkey to prevent the Russians from moving into the area and getting a foothold on the Mediterranean. Today these nations prefer to have Turkey control the Bosporus and the Dardanelles rather than to have the Soviet Union in possession of these vital waterways.

Turkey's past

Constantinople was the capital of the eastern part of the Roman empire for more than a thousand years. It was built by the Roman Emperor Constantine. Constantine was the first Roman emperor to adopt Christianity. The city became a center of Christianity in the East. It was also a trading point of western Europe with the East.

The Turks came from a region in interior Asia, east of the Caspian Sea. The land from which they came was known as Turkestan. It is now a part of the Soviet Union. Between the years 1000 and 1100 the Turks migrated to the peninsula of Asia Minor. Asia Minor lies between the Mediterranean Sea and the Black Sea (see the map, pages 268–269). The Turks took possession of the peninsula, settled down, and in time accepted the Moslem faith.

About three hundreds years later another large group of Turks arrived from the Caspian steppes. Their leader was Othman, and they became known as the Ottoman Turks. The warlike invaders pushed on beyond Asia Minor. In 1453 they captured Constantinople. They closed the trading routes across Asia to the Far East. This had the effect of shutting off communication and trade between European lands and the Far East for many years.

The Ottoman Turks conquered very large areas in southeastern Europe, the Middle East, and North Africa. When they reached Vienna, they were stopped by a large Christian army. The Ottoman empire at its greatest extent reached from the Danube River to the Persian Gulf and from Tunisia to the Red Sea. Its capital was Constantinople.

After nearly four hundred years of harsh rule, the empire of the Ottoman Turks began to fall apart. Its rulers, called sultans, were weak. Many of the officials were dishonest. Instead of enforcing the laws they grew rich by receiving bribes. As a result, Turkey came to be known as "the sick man of Europe."

In the early 1800's the Greeks achieved their freedom from Turkey. In this they were aided by Great Britain, France, and Russia. These European nations also took some of Turkey's territory and added it to their own. Turkey lost its African possessions of Tunis to France, Egypt to Great Britain, and part of Tripoli to Italy.

Turkey's most deadly enemy was Russia. Russia wanted to seize Constantinople. However, the other European nations prevented this, not because they liked Turkey but because they feared Russia. They were unwilling to allow Russia to expand toward the Mediterranean. By the end of World War I, Turkey had lost all its European lands except the small part it still holds. It had also lost the remainder of Tripoli (now named Libya) and most of its Asian lands. Nearly all of the present-day countries of the Middle East were once a part of the far-reaching Ottoman empire.

Fergusen from Monkmeyer

This view of the European shore of the Bosporus shows the domes and minarets in the city of Istanbul. The mosque on the left is Santa Sophia. At one time it was a Christian church.

The new Turkey

After World War I a group of forward-looking men took charge of Turkey's affairs. A strong leader, Kemal Pasha, and his party set up a republic. Kemal Pasha became the first president of the republic. The capital was moved from Constantinople to Ankara. Ankara was chosen because it is near the center of Turkey. New government buildings, new apartments, new homes, and hotels were built. Ankara is the size of New Orleans, Louisiana. The name of Constantinople was changed to Istanbul. For many years the Turkish name had been Stamboul.

The leaders of new Turkey decided that every person had to take a last name, or surname. Up to that time the Turkish people had had only one name. Since "pasha" is a title of respect used for high officers, and not a surname, Kemal also had to adopt a new name. He chose to be called Atatürk.

Atatürk began introducing western ways into Turkey. For hundreds of years, a Turkish man could be recognized by the tall, red felt hat he wore. This hat, called a *fez,* had a long black tassel. Atatürk forbade the wearing of the fez. Turkish women, like other Moslem women, had worn veils in public. Atatürk forbade the wearing of the veils also. Atatürk freed Turkish women from many old customs, so that they now have most of the rights that European women have. Today the men and women of Turkey wear European-style clothing.

Atatürk, who valued education, decided that the people of Turkey should learn to read and write. Schools were started for all young people, where before only a few had gone to school. Older people also had to learn to read. Sometimes government agents would stop them on the street and ask them to read from a book. Those who could not

Turkish Information Office

A farmer in rural Turkey teaches his son new ways of seed selection. Turkey has greatly increased its crop production in recent years by adopting modern methods of agriculture.

read were required to attend classes at night. If they did not attend these classes, they might be fined or even put in prison. The ancient Arabic script was replaced by the Roman alphabet used in western Europe and in the United States. Turkish books now look like ours.

Why did Atatürk carry on this educational program? He wanted the people to be able to read and write so that they could learn about self-government. Today a large number of the Turkish people can read and write. All young people must attend school.

The changes in Turkey have made it a western nation in most of its ways of living. The Turks are Moslems, but they are not Arabs. In appearance they are European.

The geography of Turkey

The entire coast of Asia Minor and the part of Turkey which is in Europe lie in the balmy Mediterranean climate. Small plains cover these areas.

The map on pages 268–269 shows that the interior of Asia Minor is a level plateau, rimmed by mountains. This region, called the Anatolian Plateau, is a dry land rather than a desert. Because of its height Anatolia is cold during the winter.

High mountains rise in the northeast of Turkey and extend into the Soviet Union and Iran. From these mountains, and from lakes, the Tigris and the Euphrates gather their waters for their journey southward to the Persian Gulf. Mount Ararat, the scene of Noah's Ark in the Bible, rises to nearly 17,000 feet above sea level.

Farming in Turkey

Turkey is a farming country. Eight out of every ten persons gain their living there by farming. Turkish farmers live in villages. Their houses are built of brick or stone because there are few trees.

Wheat is the chief crop in all parts of Turkey. Turkey is one of the ten leading wheat-producing countries of the world. The most important wheat lands are on the Anatolian Plateau, where the government has brought in machinery for seeding and harvesting.

The plain of Thrace, in European Turkey, and the small plains of Asia Minor all have a fine Mediterranean climate. Olives, figs, oranges, apricots, peaches, hazelnuts, and tobacco are also grown there. The United States imports much tobacco from Turkey because of its mild flavor. Our tobacco manufacturers mix it with tobacco raised in the United States. The region near Izmir is noted for its fine figs. There are also many vineyards, but because Turkey is a Moslem land the grapes are dried into raisins instead of being made into wine.

The hills and mountains of Turkey provide pastures for sheep. Turkey is the home of the Angora goat. The hair of these goats provides *mohair,* from which fine cloth can be made. Much mohair is exported to the United States, where it is used in summer suits and in materials for draperies and upholstery. The davenport in your living room may be covered with mohair cloth.

Istanbul today

Istanbul is a little smaller than Detroit. Although no longer the capital, Istanbul is still the largest city and a busy trade center. The city has many fine mosques. One of these, Saint Sophia, was a Christian cathedral when the city was the capital of the Eastern Roman empire. The city is a Moslem center.

EASTERN MEDITERRANEAN LANDS

The four countries of Syria, Lebanon, Israel, and Jordan are at the eastern end of the Mediterranean Sea. But Jordan does not touch the sea (see the map, pages 268–269).

A narrow strip of land at the eastern end of the sea has a Mediterranean climate and grows Mediterranean products. Back of this rise mountains and a plateau. East of the highlands is the Syrian Desert. The route from these countries to the Tigris and Euphrates Valley follows the Fertile Crescent.

Syria

Syria is a little larger than the state of Washington and has a population of about 4,539,000. Most of the people live along the Mediterranean shore and at the eastern base of the highlands. Much of eastern Syria is desert. Syria is mainly a Moslem country, but there are some Christians. The Syrian immigrants to the United States have come from the Christian areas.

Farming is the chief occupation in Syria. Wheat, barley, tobacco, cotton, olives, and citrus fruits are grown. The Syrians make fine leather and metal goods. Syria also has cotton mills.

At Damascus two streams make an oasis sixty miles long. In this area a city grew up in ancient times. Today it is a city of 454,603 inhabitants. It is a trade and manufacturing center. Aleppo is another old and famous city of Syria. Aleppo once lived only by the caravan trade on the Fertile Crescent. Today a railroad connects Aleppo with Izmir, in Turkey, and with Mosul, in Iraq.

For a time Syria was a part of the United Arab Republic. But in 1961 Syria revolted and became an independent nation again. The capital of the republic is Damascus.

Lebanon

Lebanon lies on the Mediterranean coast. It is about three times as large as Rhode Island and it has about twice as many people. Half are Moslems, and half are Christians. The language of Lebanon is Arabic.

The people of Lebanon are proud of their history of seafaring. They are the descendants of the Phoenicians, the sailors of the ancient world who traveled all over the Mediterranean and on the Atlantic to Great Britain. The Phoenicians built their ships from the tall cedars of Lebanon.

Cities Service

New and ancient ways of living are often seen in the Middle East. A camel, still important as a beast of burden, stands in front of a modern oil derrick.

Beirut, the capital of Lebanon, is a seaport city. It is the home of an American university. Mediterranean products are grown by the Lebanese, most of whom are farmers.

Two pipe lines from oil fields in Iraq and Saudi Arabia end in Lebanon. This makes Lebanon a center of the oil trade between the Middle East and Europe. Lebanon exports farm products. Most of its imports, such as machinery and wheat, come from the United States and Great Britain.

Jordan

The kingdom of Jordan extends from the plateau eastward into the desert. It is a little larger than Indiana. The population, which is about 1,636,000, is entirely Arab. In addition, Jordan has many thousands of Arab refugees, who fled from Israel when Israel was established as a Jewish nation. Amman is the capital and chief city.

Most of the people of Jordan live in the small area that lies in the Fertile Crescent, in the Jordan River valley, and on the upland near Jerusalem. The old part of the city of Jerusalem lies within the boundaries of Jordan.

Israel

The Republic of Israel is one of the new nations of the world. It was created in 1948 and occupies the major part of ancient Palestine. Jerusalem is the capital.

Palestine was a part of the Ottoman empire until World War I. British armies captured the area, and Britain ruled it until the new state was founded.

Palestine, once called Canaan, has had a long history. More than 5000 years ago a shepherd named Abram, or Abraham, who lived near Ur (see the map on page 23) moved his family and his flocks westward.

Abraham's descendants, the Hebrews, established an important kingdom in Canaan under their rulers, David and Solomon. After the death of Solomon the kingdom was divided. The people of the northern kingdom, called the Israelites, were defeated by neighboring nations and carried into captivity. Later the Jews, of the southern kingdom, were also defeated and carried away. A few people remained, however, and others returned. Wherever they have gone throughout the world, the Hebrews have kept alive their religion, their books, and their language. Many of them hoped that someday Palestine would be returned to them.

After World War I a plan called Zionism was started to provide a Jewish homeland in Palestine. Jews from Europe settled in the area. During and after World War II, more and more settlers arrived. When the British withdrew and Israel became a nation, immigration increased. Most of the settlers have come from European countries. Money to help Israel has been given by Jews from all over the world.

Many of the new settlers in Israel make a living by farming. Large orange groves have been planted. Fields are irrigated. Wet, low fields in the Jordan River valley have been drained. Wheat, cotton, grapes, olives, figs, and other products are grown. But the growing of oranges and other citrus fruits has become the chief farm activity.

New factories have been started in Israel, and skilled immigrants from Europe now work in them. Textiles, chemicals, fountain pens, and brushes are made. Diamonds are polished. The factories, in general, turn out products which require only a small amount of raw materials because all raw materials have to be imported. The finished products are those that require skilled workmanship.

Tel Aviv is the largest, the most modern, and the most highly industrialized city in Israel. It has many beaches along the Mediterranean. In Hebrew, Tel Aviv means "Hill of Spring."

Israel Government Tourist Office

Jerusalem is built on the plateau that separates the plain along the Mediterranean Sea from the Jordan Valley. The city of Jerusalem is a holy city for Christians, Moslems, and Jews. It has many fine churches, mosques, and synagogues. The Jordan flows into the salty Dead Sea, the lowest spot on any continent. It is nearly 1300 feet below sea level.

Haifa is Israel's principal seaport. The ancient city of Jaffa is also an important seaport. Near Haifa is the new city of Tel Aviv, built after World War I. Tel Aviv is the chief supply center for the farming regions of the plain along the Mediterranean. It is an important manufacturing center, too.

THE ARABIAN PENINSULA

Nearly all of the Arabian Peninsula is a desert. The desert extends from Saudi Arabia into southern Israel, eastern Jordan, southeastern Syria, and western Iraq. In Saudi Arabia the desert is called the Arabian Desert. In the countries to the north the desert is called the Syrian Desert. The Fertile Crescent, we recall, curves around the Syrian Desert. Find these countries and deserts on the map, on pages 268–269.

Today this desert is one of the richest places on the earth. Beneath the dry surface lie valuable deposits of oil. These desert oil fields are second only to the United States in world oil production. Scientists believe that the Middle East will soon be first because tests show that its underground deposits of oil are greater than those in the United States. However, the desert area in which the oil is found is divided among many Arab countries. No one country comes close to the United States in oil production, but together they are the second oil-producing region of the world. The United States ranks first.

The greatest oil area is around the Persian Gulf. Kuwait, a small country at the head of the Persian Gulf, Saudi Arabia, and Iraq lead the other Arab countries in oil production. But Iran, the Bahrein Islands in the gulf, and Qatar are not far behind in the production of oil. Find these places on the map on pages 293.

A visit to the Persian Gulf

Suppose we visit one of the great oil refineries on the Persian Gulf. The sun beats down on us mercilessly. We have to shield our eyes from the glare of sun, sand, and water. Even the sea water is very warm. Great oil refineries and oil tanks shine in the sun. Arab workers hurry about, directed by engineers and other men who are specially trained. Pipe lines carry the crude oil from the wells in the desert to the oil refineries. Other pipe lines carry refined oil to the docks. Still other pipe lines, which extend from the refineries westward across the desert, carry refined oil to the eastern end of the Mediterranean Sea.

Let us now visit the docks. We see an oil tanker that is being filled with oil and gasoline from the pipe lines.

"When the ship is loaded," the captain tells us, "we will sail out of the Persian Gulf. Then we will go around the south of Arabia. At Aden we will enter the Red Sea and sail on through the Suez Canal to the Mediterranean.

"Ships like this carry oil and gasoline to Europe to run machines, trucks, and cars there. Europe could not run its machines long without oil from the Middle East and ships like mine to transport it. We are part of the lifeline to Europe. Oil today makes up half the cargo that is shipped through the Suez Canal."

Saudi Arabia

The largest country on the Arabian Peninsula is Saudi Arabia. This country, which is more than three times the size of Texas, reaches from Jordan to Yemen (see the map, pages 268–269). The population is estimated at about 6,500,000. Saudi Arabia covers four fifths of the Arabian Peninsula. The peninsula rises steeply from the Red Sea and then slopes gradually eastward to the Persian Gulf. Saudi Arabia is without rivers or lakes. Thus it is a desert land with a few oases.

In 1926 a strong ruler, named Ibn-Saud, came to power in Arabia. He waged war against rival leaders and small desert sheikdoms and won. From his conquests he formed the new and important country of Saudi Arabia. Ibn-Saud became its first king. The religious centers of Mecca and Medina are in Saudi Arabia. Half a million Moslem pilgrims visit these cities each year. With the income from these tourists, Ibn-Saud had money to run his government.

When oil was discovered in Saudi Arabia, great oil fields were developed there. Ibn-Saud became rich from the *royalties* paid to him by the oil companies, most of which are British and American. Royalties are shares of the income from a product paid to the owner in return for his permission to use the property. The foreign companies pay royalties to the king for each barrel of oil that is produced in his country. Each company also pays for a *concession,* or the right to try to find oil in certain parts of the nation. The money that is obtained from these concessions also helps to make the king rich.

Ibn-Saud used some of the money from his royalties and concessions to help his people. Wells have been dug for water to use in irrigation. Health programs have been started. Medical care is free in the country.

The first modern railroad in the nation was opened in 1951 from Dammam on the Persian Gulf to the capital city of Riyadh. The seaports of Jidda, on the Red Sea, and Dammam have been made completely modern. Air lines link the nation with other nations of the world. One of the best airports in the world, built in part by the United States, is at Dhahran, on the Persian Gulf.

Most of the people of Saudi Arabia work in the oil fields, for the air lines, or by serving the Moslem pilgrims. The rest of them are either oasis dwellers, like the people of the Sahara, or pastoral nomads. The Arabian oases produce dates and other fruits, vegetables, and large quantities of very fine honey. The nomads of Arabia have horses to help them herd their flocks.

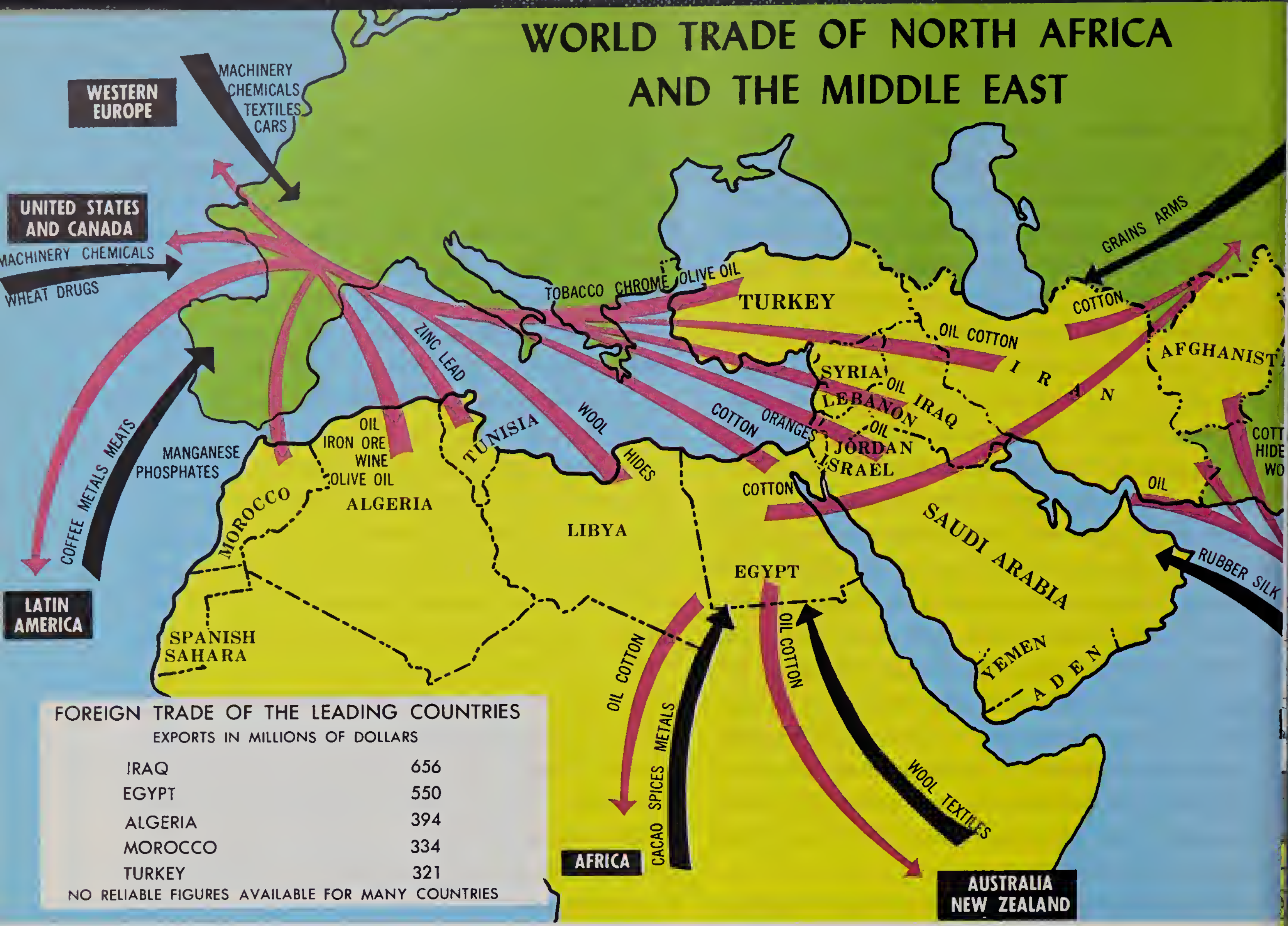
Saudi Arabia has two capitals, Riyadh and the holy city of Mecca. Riyadh, a city of 280,000 people, lies in a large, inland oasis. Mud-brick walls enclose the city. The city has many fine mosques.

Ibn-Saud's sons, who succeeded him, continued to use some of the oil royalties to help their country. But Saudi Arabia is still a very backward nation.

Yemen, "fortunate" land

One of Saudi Arabia's neighbors is Yemen, near the southwest tip of the Arabian Peninsula. Find it on the map on pages 268–269. Unlike the rest of the peninsula, Yemen receives some rain. For this reason it is sometimes called "Fortunate Arabia." The rain falls in the mountains, and dense fogs sometimes cover the mountain slopes above the Red Sea. The rain and moisture from the fog help grass and certain kinds of trees to grow.

The coffee tree grows well in Yemen. Yemen is the home of Arabian coffee.



WORLD TRADE OF NORTH AFRICA AND THE MIDDLE EAST

FOREIGN TRADE OF THE LEADING COUNTRIES
EXPORTS IN MILLIONS OF DOLLARS

IRAQ	656
EGYPT	550
ALGERIA	394
MOROCCO	334
TURKEY	321

NO RELIABLE FIGURES AVAILABLE FOR MANY COUNTRIES

IRAQ, OLD AND NEW

Today the valley of the Tigris and the Euphrates, an early cradle of civilization, is in the Arab land of Iraq. Only scattered ruins mark the places where the ancient cities stood. Iraq is about the size of California, with as many people as New Jersey.

Iraq was once a part of the Turkish empire. After World War I, it came under British control. A few years later Iraq was given its independence and elected a king. In 1958 a revolution, led by a small group of military men, overthrew the government and established a republic.

The Tigris and the Euphrates still water fields along their courses. Wheat, barley, rice, and cotton are grown in the irrigated lands along these rivers. But throughout the years these rivers have brought mud and silt from the mountains of Turkey. A delta, like that of the Nile, now extends far out into the Persian Gulf. A man of ancient Ur, if he returned, would not recognize the shore line.

The Shatt-al-Arab, formed by the joining of the Tigris and Euphrates rivers, flows through almost continuous groves of date palms. Along the river banks there are water gates, through which the river water flows to irrigate the trees. When the date gardens are covered with pools of water, the gates are closed to shut off the water. This is one of the simplest ways to control the flow of water in irrigated areas. These famous date gardens are partly in Iraq and partly in Iran.

Baghdad, an ancient city, is the capital of Iraq. The city's minarets and the blue or gold domes of mosques rise above gray, flat-roofed houses. White-robed Arabs sell and trade in the narrow, twisted streets and crowded bazaars, or market places.

Mosul lies near oil fields. Pipe lines from these fields lead westward across the desert to seaports on the Mediterranean in Lebanon and Syria. At these seaports, tankers are loaded for the journey to Europe.

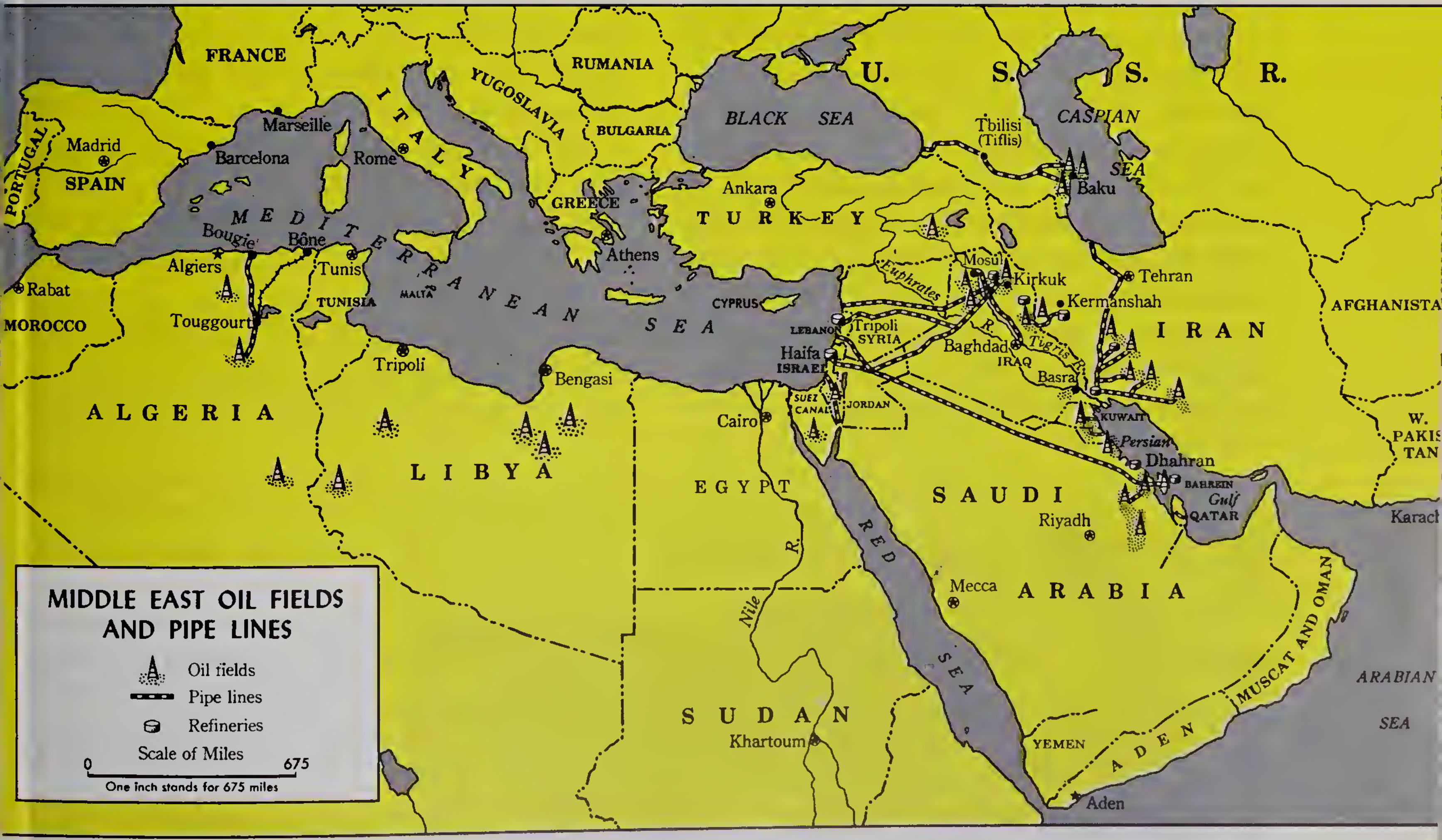
IRAN, "LAND OF THE ARYANS"

The beautiful land of Iran, with its bright sunshine, lies mainly on a plateau. Because Iran is high above sea level, except in the southwest along the Shatt-al-Arab, the climate is not so hot as in Iraq. The plateau contains both dry and desert lands. The Iranians use bright colors on their buildings, on their city gates, and on their mosques.

Northwestern Iran is mountainous and has lakes. The Elburz Mountains, which rise as high as 18,000 feet, lie along the southern shore of the Caspian Sea. From the map you see that Iran has a shore line along this sea as well as along the Persian Gulf and the Arabian Sea. In northern Iran two areas on either side of the Caspian Sea touch the Soviet Union.

Ancient Persia

In the past Iran was known as Persia. The Persian empire was one of the leading countries of the ancient world. It remained an important nation until the 1700's. When the tsars of Russia showed signs of wanting to move into Persia, Great Britain took


MIDDLE EAST OIL FIELDS AND PIPE LINES

notice. If Russia should gain control of Persia, it would thus come close to the British possession of India. Finally, the two nations came to an agreement by which Russia was to have certain rights in northern Persia and Great Britain was to have certain rights in the south. The middle section was to be a buffer, or neutral, zone. But the Persians, caught in the middle, did not like the arrangement.

A reform party arose that worked for Persian independence. After World War I, when the tsar lost his throne, Russia gave up its claims to Persia. Great Britain finally withdrew its claims also. In 1925 Persia became independent. The ruler is called a *shah,* which means "ruler" in the Persian language.

Modern Iran

In 1928 the shah of Persia decided to modernize his country. He decreed that the people must wear European-style clothing. He planned for the improvement of roads. A railroad was built from the Caspian Sea to the Persian Gulf. Wireless stations were set up, and an air service was established. After 1935 Persia was officially known as Iran. Iran means "land of the Aryans," the people who are thought to be the earliest inhabitants of the region. Iranians are not Arabs, though a few Arabs live in Iran.

Iran today is more than twice the size of Texas and has a population of 20,633,000. Tehran is the capital.

The world owes much to the Persians. They gave us the peach tree, the apricot tree, the lilac bush, and many kinds of melons. The Persians were skillful in making perfumes from flowers, and these perfumes were brought to the western world by the Turks.

Today the dry parts of the Plateau of Iran are the home of shepherds. The people of these areas are not nomads. But pastoral nomads live on the deserts.

Many sheep graze on the fine pastures of the mountains in northwestern Iran. The country produces a large quantity of wool. Some of the finest and most expensive rugs in the world are woven on hand looms in villages in this region. Dyes for the wool are made from plants that grow in the region. Tabriz is a market for these rugs. These rugs were once called Persian rugs, but now they are called Oriental rugs.

The farming regions of Iran are located near the base of mountains, where there is water for irrigation. Wheat, barley, rice, tobacco, cotton, and fruit are grown.

The Caspian shore, north of the Elburz Mountains, is a different region. It is a very rainy area, with fine forests and tea plantations. Many fish are caught in the Caspian.

Chapelle from Monkmeyer

This farmer is using oxen and a primitive wooden plow to till his fields. Work in the Middle East today is frequently done in much the same way it was done in ancient Biblical times.

The oil fields of Iran lie in the southwest, along the Persian Gulf. This part of the nation has been greatly affected by the oil boom. Thousands of workers are employed in the oil fields and at the world's largest oil refinery at Abadan, on the Shatt-al-Arab. In 1951 the Iranian government took over the oil fields and refineries from the foreign-owned companies that drilled and built them. It did this because it believed that the government's share of profits from the oil was too small. However, the government found itself unable to operate the oil fields and refineries. So it leased them to a group of companies, made up of British, Dutch, French, and United States companies. The foreign companies now pay Iran royalties which amount to half of their earnings. It is oil that supports the government today.

Tehran is an old city that is rapidly growing and changing. Within its walls are narrow streets, stone buildings, and many mosques. But as the capital of a nation with much oil money, Tehran is becoming a modern city. New suburbs, hospitals, and university buildings have been built. Tehran has a good water supply.

NEIGHBORS TO THE EAST

Afghanistan and Pakistan are Moslem countries which lie to the east of Iran.

Afghanistan, land of the sky

Afghanistan, which is almost as large as Texas, is high above sea level. Kabul, the capital of the kingdom, is more than one mile high, and parts of the country are more than two miles high. On all sides a mountain wall or a desert separates Afghanistan from its neighbors. It is little wonder that few outsiders ever visit this land and that the 13,000,000 people rarely leave it.

Kabul has an important geographical location. It lies in a valley near the passes through the high and snow-covered Hindu Kush Mountains. The passes lead from inner Asia, now in the Soviet Union, to India. In early times invaders from Asia moved through these mountain passes.

Afghanistan has no seacoast. Transportation is mainly by camel caravan. Life is primitive in many parts of the country. Nomads live in the deserts and the mountains.

In the better-developed areas the people live much as the people of neighboring Iran. Sheep are the leading animals in both the dry lands and in the high, cold lands. Their wool is made into rugs in the villages. Wool and sheep skins are exported. A special kind of sheep, called the fat-tailed sheep, is native to Afghanistan. Mutton is the basic meat.

A brief look at Pakistan

From the map on page 305 you see that Pakistan is divided by India into two separate parts. The dry lands which cover so much of the Middle East extend into West Pakistan, but East Pakistan is a rainy region. The Indus River flows across West Pakistan.

Because Pakistan lies on the peninsula of India, we will consider it more thoroughly in the next unit. But we should remember that the people of Pakistan are Moslems and are more like the people of the Middle East than they are like the people of India.

Do you know—

1. What is the Fertile Crescent? What ancient cities grew up there?
2. Why is Turkey's location important?
3. What four countries lie at the eastern end of the Mediterranean?
4. What is the Arabian Peninsula like? What is its most important export product?

TO HELP YOU LEARN

Words and Terms to Remember

royalties   concession   mohair   fez   shah   Fertile Crescent

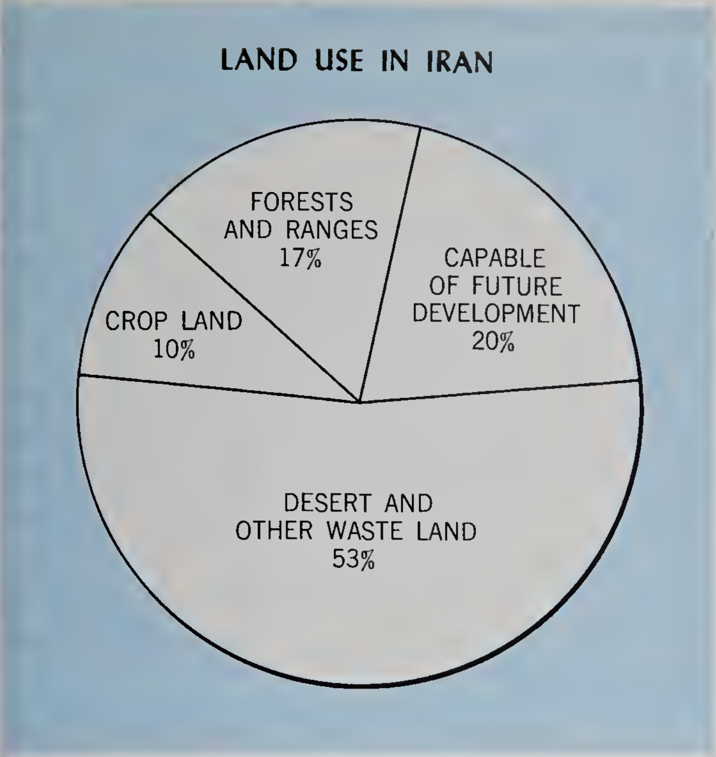
A Matching Game

Number a paper from 1 through 6. After each number write the word or term from the list above which matches the definition.

1. **A permit that grants the right to use a piece of property for certain specified reasons**
2. **A curved belt of well-watered land extending from the Persian Gulf to the Mediterranean Sea**
3. **The hair of Angora goats**
4. **A share of the income from a property which is paid to the owner for the right to use the property**
5. **The title of the ruler of Persia and of present-day Iran**
6. **A kind of hat, usually red in color with a black tassel, formerly worn by men in Turkey**

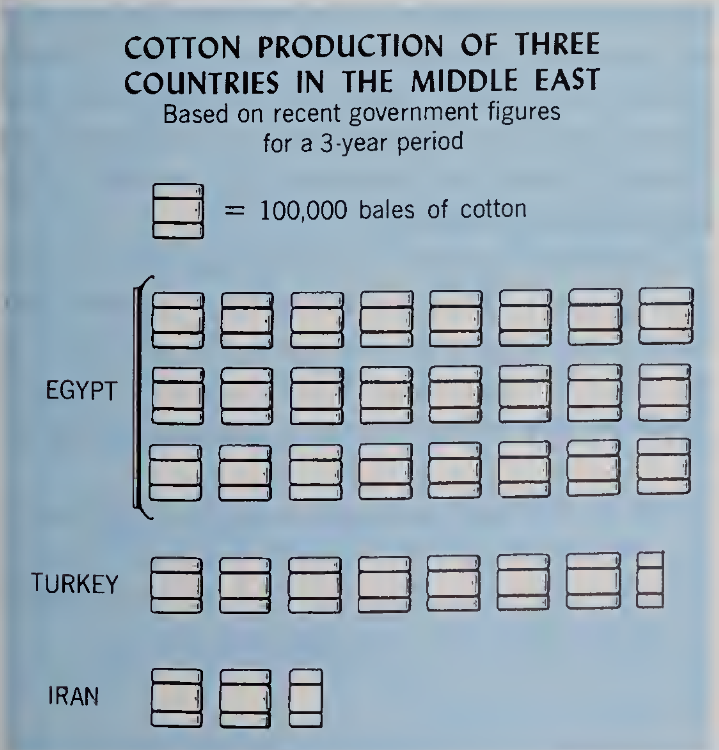
Finding the Facts

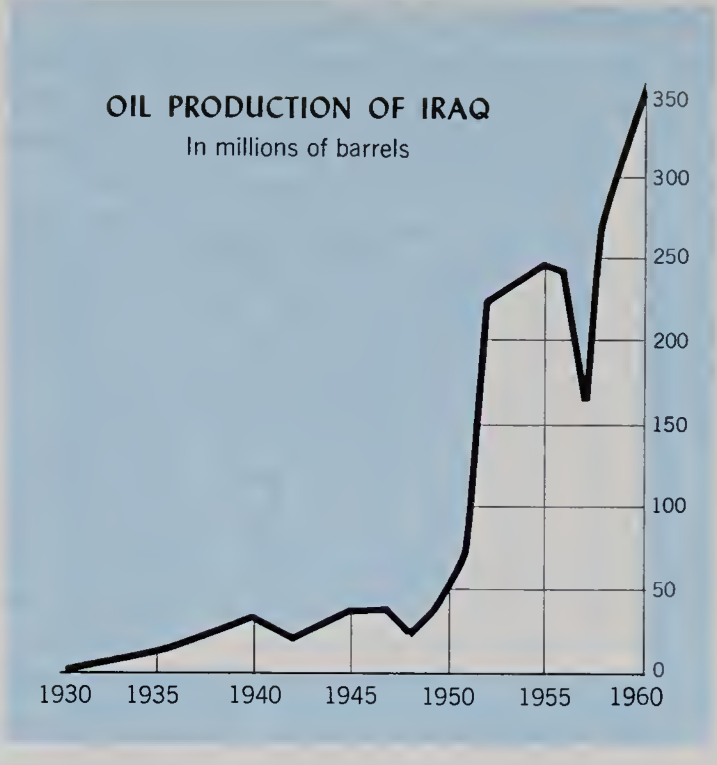
1. Why were the early followers of Mohammed eager to spread their religion? In what areas were they successful?
2. Why do the climate and vegetation of most Moslem countries favor the raising of sheep, goats, and camels? Why are pigs not raised in these countries?
3. How have we learned about the people who lived in ancient Egypt? What conditions favored the development of civilization in Egypt in early times?
4. What are the climate and land of Algeria like? Where do most of its people live? When did Algeria become independent?
5. What parts of North Africa once belonged to the Roman empire? What products did these lands export to Rome in ancient times? What do they export today?
6. Why is Egypt a part of the Arab world, although its people are not Arabs?
7. Describe the three methods of irrigation by which Egyptian farmers obtain water for their land. What does perennial irrigation mean? Where is it used?
8. How do the farms in the Nile Delta and the farms in Upper Egypt differ in size? What crops do the farmers of each region raise?
9. What is the Sahara like?
10. Who became the leader of Turkey after World War I? How did he help his people?
11. What are the natural regions of Turkey? How do the mountains of Turkey benefit the Fertile Crescent?
12. What do the exports of Israel tell us about its climate?
13. What is Saudi Arabia like? How do most of its people make a living?
14. Why is Yemen sometimes called "Fortunate Arabia"?
15. Through what nation do the Tigris and the Euphrates rivers flow? What large river is formed by the joining of these two rivers? How is the mouth of this river similar to the mouth of the Nile?
16. Compare the climate and products of Iran and Iraq.
17. Why do few outsiders visit Afghanistan?
18. In what ways are the people of Pakistan like the people of the Middle East?



A graph is a diagram which presents facts in a way that is easily understood. Three types of graph—circle, line, and bar—are shown here.

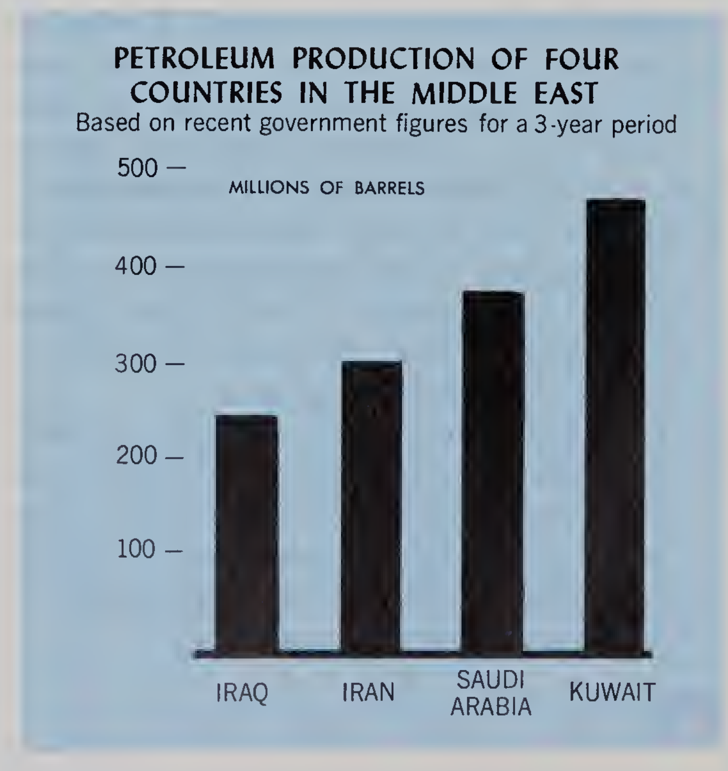
A *circle graph* is used to show the parts of anything in percentages in relation to the whole (100 per cent). The circle graph above represents the total area of Iran. It is divided in sections to show the land uses, with percentages given for each. According to the graph how much land is in crops? In desert? What does the graph reveal about life in Iran?





A *line graph* shows production over a period of time. The line rises or falls as production increases or decreases. In what period does the line graph above show oil production in Iraq increasing most rapidly?

A *bar graph* is a good way of expressing comparisons. What does the bar graph at bottom left tell about cotton production in three countries of the Middle East? What does the bar graph at bottom right tell about oil production in four countries of this region?



Using Maps

1. Turn to the map on page 23 and find the four cradles of civilization. Using the map on page 45, find the present-day countries in which these civilizations developed.
2. On the map of the world, pages 48–49, compare the desert areas of North Africa and the Middle East with the deserts of other world regions. Are the deserts of the Middle East among the largest or the smallest?
3. On the map on pages 268–269 find the Suez Canal. Now turn to the map on page 278. What water route did ships sailing from London, England, to India use before the opening of the canal? On what bodies of water would a ship sailing between these two points travel after the canal was opened? About how much shorter did the route become? Use a piece of string to measure the distance. Be sure to hold the string in place as you curve it around Africa. Use a second piece of string and curve it carefully around Spain. Did the canal shorten the distance between England and India by half? Or by more?
4. Locate the Nile River and its tributaries on the map, pages 268–269. In what country does the Blue Nile River rise? What other tributary rises in the same country?
5. Using the map on pages 268–269, show how a ship can sail from Istanbul, Turkey, to Karachi, Pakistan. Make a list of the seas and waterways through which the ship would pass. Which of these are natural bodies of water? Which are man-made?
6. On the map on page 293, find the oil-producing lands of the Middle East. How does the oil reach western Europe? Show where pipe lines are laid to carry oil to the eastern end of the Mediterranean Sea.
7. Find Afghanistan on the map on pages 268–269. What mountains run through this country? What famous pass is found in these mountains? Why was this region an important crossroads of travel in early times? (See the map on page 149, bottom.)

Making Geography Real

A great new dam, the Aswan High Dam, is being built on the Nile River about 450 miles south of Cairo. By 1967, when completed, the dam will hold back enough river water to form the largest man-made lake in the world. The Nile will no longer overflow its banks. And the water of the lake can be released as needed to irrigate crops throughout the year.

The new dam will make it possible to irrigate 3000 square miles of desert land. These regions will then produce grain and cotton to feed and clothe needy Egyptians. In addition, the dam will provide hydroelectric power for industry in the area. Building such a dam requires large sums of money, and Egypt is seeking loans from other nations.

Egypt, however, will pay a price for its progress which cannot be measured in money. The lake created by the first Aswan Dam often floods the island on which the ancient temple of the goddess Isis stands. The lake formed by the new dam will in time completely cover other ancient temples and tombs.

Some of the relics are 3000 years old. These monuments are covered with hieroglyphics. If they are buried under water, archaeologists will be unable to learn more about the cities that once stood there.

The Egyptian government is trying to save the monuments. Some can be moved. Others can be protected by waterproof walls. One is being raised on concrete pillars so that it will stand above the lake. Other nations, including the United States, are interested in helping Egypt to preserve its heritage.

Thus the engineers of the dam have a twofold purpose. They are building a modern dam which will improve the standard of living of present-day Egyptians. They are also seeking to preserve the priceless monuments of the past.

1. How will the new dam help the Egyptians?
2. Do you think that preserving Egypt's ancient monuments is of equal value to the building of the dam? Why, or why not?

Interesting Things to Do

1. The class might like to undertake imaginary archaeological expeditions. If so, let one group visit Egypt to explore the ruins of early civilizations in the Nile Valley. Let another group explore the ruins in the Tigris-Euphrates Valley. Each group can choose members to look up information in the library. When the material is collected, each group can dramatize its discoveries.
2. Write a diary telling about a week spent with nomads on the Sahara or a week spent with oasis dwellers.
3. In an encyclopedia or in an almanac you will find a list of the "Seven Wonders of the Ancient World," with a description of each. How many were located in North Africa or the Middle East? Show these locations on the map, pages 268–269. As each is pointed out, have a member of the class give a brief description of it.
4. Some of the countries discussed in this unit made valuable gifts or contributions to the world in ancient times. Use the library to find out what these gifts were.

Things to Think About

1. For many years Great Britain guarded the Suez Canal under an International Commission. In 1956 Egypt took control of the waterway. Do you think the canal should be operated by a single country? Or would it be better for a world organization, such as the United Nations, to manage the canal? Give reasons for your opinion. Do you feel the same way about the control of the Panama Canal? Why, or why not?
2. Suppose that scientists were to announce that they had perfected a practical method of purifying sea water on a large scale. Why would such news attract great attention in North Africa and the Middle East?

Making an Outline

An outline, as you have learned, is a listing of the different parts, or headings, of a subject. Study the text and make an outline of Unit 6. First fill in the missing headings below. Then complete the outline of the unit. Be sure to carry out the outline through these four steps: I, A, 1, a.

I. The Moslem Lands and People
    A. Islam, religion of the Middle East
        1. Mohammed, founder of Islam
            a. The prophet of Allah
            b. Author of the Koran
            c.
            d.
        2. The spread of Islam
            a. Conquest of Arabia, Persia, and North Africa
            b.
            c.
            d.
    B. Islam Today
        1. Moslem ways of living
            a. Pilgrimages to Mecca
            b.
            c.
        2. Moslem unity

II. The Lands of North Africa
    A. Old civilizations in North Africa
        1. Early communities
            a.
            b.
        2. Arabs in North Africa
    B. Two kinds of climate
    C. Countries of Northwest Africa
        1. Morocco
            a. Land surface
            b.
            c.
            And so on
        2. Algeria
            a.
            b.
            c.
        3. Tunisia
            And so on

Picking tea leaves
in India

Gathering rubber
in Malaya

Tilling a rice field
in South China

Textile making
in a Japanese factory

7.

The Countries of the Far East

THE JADE GATE, at the western end of the Great Wall of China, was a busy place when Marco Polo first visited it almost seven hundred years ago. Through this gate caravans left for the long trip across the desert to eastern Europe. Camels were loaded with silks, china, tea, and other products of the Far East.

Marco Polo watched one of the caravans until the men and animals faded from sight. He thought of the oases in inner Asia to which some of the products were being taken. He knew that some of the cargoes would be transferred to other caravans in Turkestan. From there the goods would go westward by land to the Mediterranean, where they would be put on ships bound for European ports.

As the caravan disappeared toward the west, Marco Polo caught sight of another caravan coming over the horizon. When it reached the Jade Gate, he saw that the animals carried loads of a kind of stone called jade. The jade, used for ornaments, came from the mountains to the southwest. Now Marco Polo understood why the gate was called the Jade Gate.

Marco Polo, as you may recall, was a young man from Venice who had accompanied his father and his uncle on a business trip to China. The Polos had crossed the Mediterranean and gone by caravan across the deserts and mountains of Asia. When they reached China, they were welcomed by Kublai Khan, the emperor. The emperor liked Marco, who was a bright young man. After Marco learned the Chinese language, Kublai Khan sent him to handle the business matters of the empire in many parts of China.

After spending many years in China, the Polos had become rich. They decided to return home. They took the sea route, sailing from the coast of China around southeast Asia to India, then to the Persian Gulf. Then they went on land across Persia to the Black Sea. There they took a ship for Venice.

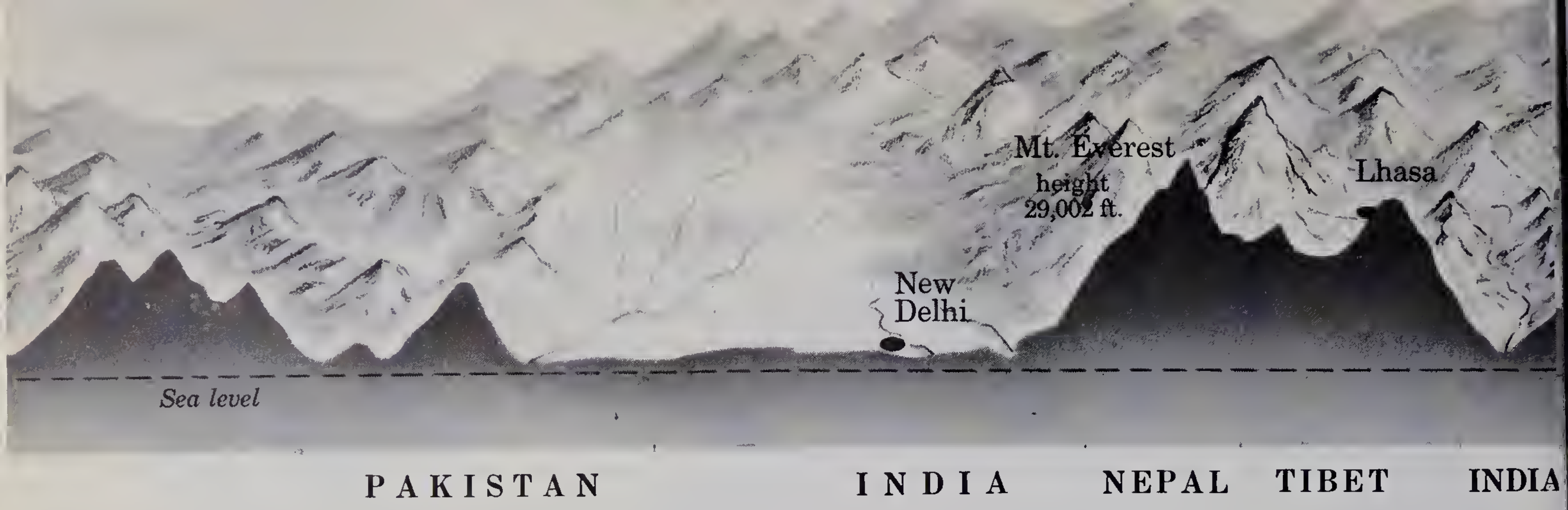
In Marco Polo's time the front door of China was the Jade Gate. China's trade was carried on by caravans of camels plodding across Asia to eastern Europe. Today China's front door opens on the sea. The Polos arrived by the old front door. They left by the new front door.

Back home in Venice, Marco Polo talked about his travels. One of his listeners wrote Marco's story down. Some years later it was published as *The Book of Marco Polo*. For many years the book was the chief source of information about the Far East for Europeans. Many traders and travelers began to find their way to the Far East. Christopher Columbus read the book as a young man.

The Great Wall of China, the land of China, and India, all of which Marco Polo visited, are part of the Far East. These places and lands are still important today.

As we study this unit on the Far East, we will find the answers to these questions:

1. What are the lands of the Far East?
2. What is life like in India and Pakistan?
3. How do people live in Southeast Asia?
4. What do we know of China's past? Of China today?
5. How do people live in Japan and Korea?
6. What is Indonesia like?
7. Why is the United States interested in the Far East?



1. THE LANDS OF THE FAR EAST

The Far East is that part of Asia which extends from Pakistan on the west to Japan on the east. From the map on page 305 you see that the Far East includes southeastern and eastern Asia as well as the islands south of the continent. Europeans called this vast area the Far East because it lies in the part of the world which is farthest east from Europe. Siberia, a part of the Soviet Union, is not usually considered a Far Eastern land.

The Far East contains more than one tenth of the total land area of the world. But it is the home of over half the people of the world. Great stretches, however, are desert or high-mountain country, in which few people live. This means that many places in the Far East are so crowded that the population density is greater than anywhere else.

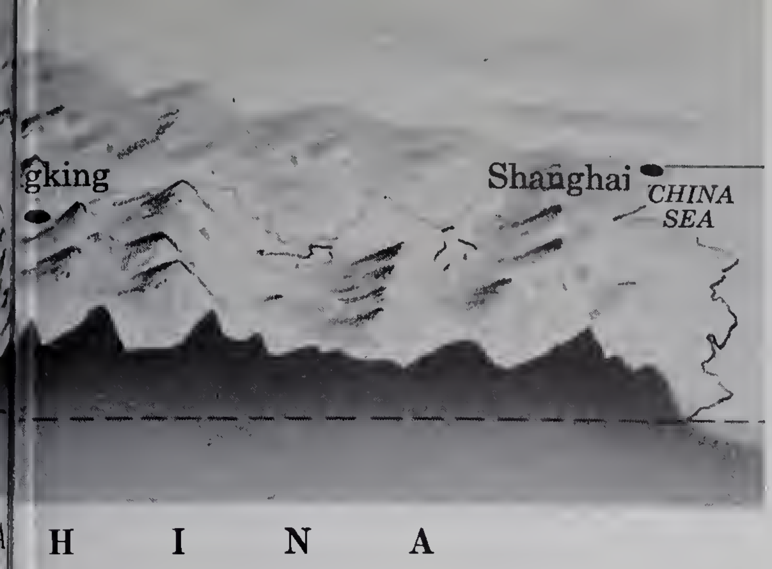
One and a half billion people live in the Far East. This means that three out of every five persons in the world live in the Far East. About one out of every five persons lives in China alone.

CIVILIZATIONS OF THE PAST

The Far East is an area of very old civilizations. As we know, early communities developed in the river valleys of China and India. In India, southeast Asia, China, and Japan stand ancient temples, some of which are thousands of years old.

The earliest written records of China that have survived were made more than 1200 years before the time of Christ. But the Chinese had developed a system of writing many years before this. Because they wrote on wooden tablets, rather than on stone, the earliest records have rotted away. But relics of their ancient civilization such as irrigation canals, canals for travel, and a Great Wall still remain. Gunpowder, printing, and paper were invented and used in China long before Europeans dreamed of such things.

The Far East is dotted with many ancient temples. One of these is the ruins of a temple at Angkor, in Southeast Asia (see the map on page 320). This temple was discovered in the jungle in 1858. When the trees and tangle of tropical vines had been cleared away, a beautiful building, with tall towers and many columns, was revealed. Archaeologists found that a great city had once existed at Angkor. Angkor had been deserted, and the fast-growing jungle had swallowed up the city. No one yet knows what happened to the people of Angkor.



The temples of India, Java, and China did not share the fate of Angkor. Some have been in use for a thousand years or more.

FIVE GREAT REGIONS

For the purposes of our study we will divide the Far East into five large regions: India and Pakistan, Southeast Asia, China, Japan and Korea, and the East Indies. Find these on the map on page 305.

Location of the regions

The peninsula of India is sometimes referred to as a *subcontinent*. A subcontinent is a large land mass which is somewhat isolated, or shut off, from near-by lands. From the map you see that India is shut off on the north from the rest of Asia by the highest mountains in the world. Seas border the peninsula of India on the east and the west. To the south lies the Indian Ocean. Two separate nations occupy the subcontinent—the republics of India and Pakistan.

Southeast Asia includes Burma, Thailand, Laos, Cambodia, North and South Vietnam, Malaya, and some small territories. This region lies between the Bay of Bengal and the South China Sea.

China measures about 2500 miles from north to south at its greatest depth and the same distance from east to west at its greatest width. It has more people than live in North and South America and Africa together.

The Korean Peninsula extends in a southeasterly direction from the continent of Asia. The Sea of Japan separates the peninsula from the group of islands to the east, called Japan. These islands stretch nearly 2000 miles from north to south.

The islands of the East Indies lie south and east of Asia. These islands extend over a distance greater than the width of the United States. The nation of Indonesia occupies most of the western and central islands of the East Indies. The eastern islands are owned by European countries or Australia.

In some ways all parts of the Far East are much alike. They all have dense populations, raise crops rather than many animals, and depend on rice as their chief food.

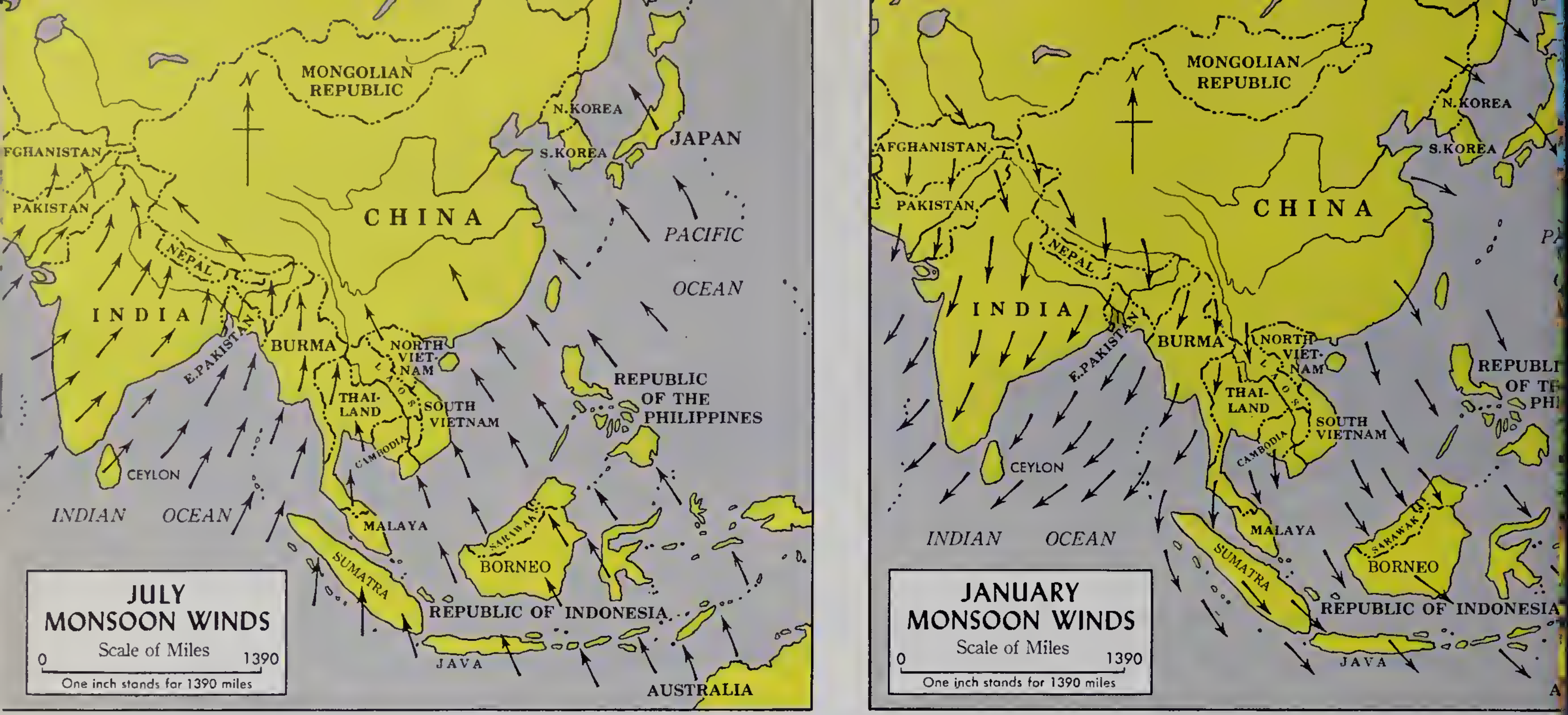
Dense population

We have learned that a billion and a half people live in the Far East. Some flat river plains and deltas, where rice grows well, support from 1000 to 2000 people on each square mile. This is true of the great river plains of China, of parts of the broad Ganges River plain in India and Pakistan, and of the small deltas of China and Japan. The island of Java is very densely peopled.

Four out of every five persons in the Far East live on farms. Most Far Eastern countries cannot import food from other lands, because they do not have manufactured goods to sell or to exchange for it. So they must raise the food they need. This means there are many farmers with small farms.

Wet and dry seasons

Most regions of the Far East have only two seasons—a wet summer and a dry winter.



In Southeast Asia it grows very hot in late April, May, and June. As the hot air rises, wet winds from the surrounding oceans blow in. By July the rainy summer monsoon is at its height. In October the lands begin to cool. The winds, having lost their moisture, change direction and blow out to sea. As the winter monsoon winds blow, the land becomes very dry.

Winds, called *monsoons,* blow during certain months in the Far East. Monsoon is a word meaning "season." When the lands of southern Asia grow very hot in late April and May, the warm air rises over the plains and hills. As it rises, air from the surrounding seas and oceans rushes in to take its place.

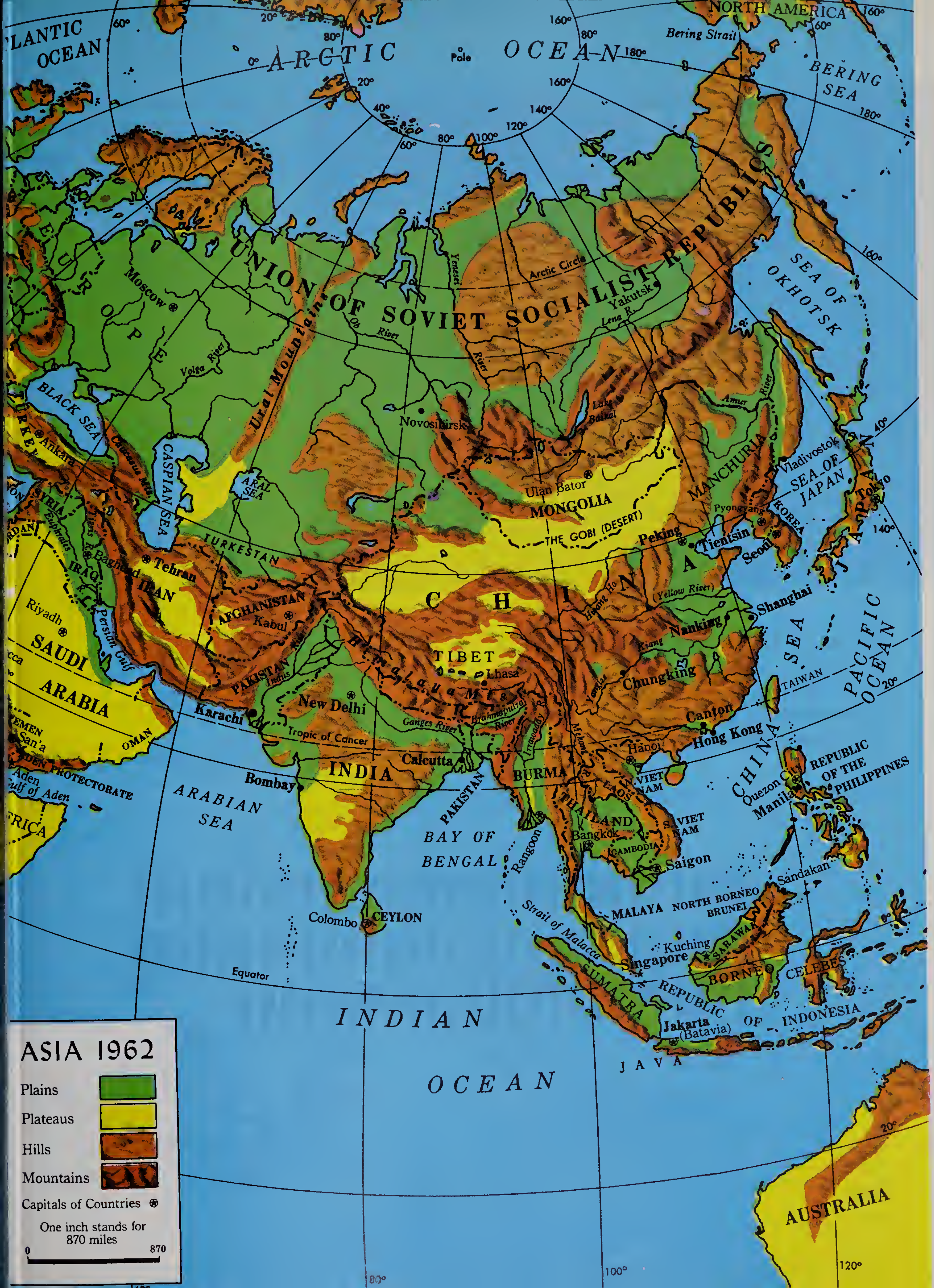
By late May or early June the wind blows in so strongly that it is called the "burst" of the monsoon. This summer monsoon is a wet wind because it has absorbed much moisture from the ocean. As the monsoon winds rise over mountains or as thunderstorms develop, the moisture turns to rain.

The vegetation of the Far East becomes lush and green with these rains. Rice is planted at this time because there is water to flood the fields. Rice is such a thirsty plant that it must be covered with water nearly half the time between planting and harvest.

The rainy monsoon winds of summer do not reach all of the Far East. Western China does not receive the winds or the summer rains and, as a result, it is a desert region.

By October the lands begin to cool off. After a time the land is cooler than the sea and the oceans. Now the winds change and begin to blow in the opposite direction. They blow from the land out to sea. Because these winds have passed over the land, they carry very little moisture. The winter monsoon, therefore, is dry. It blows for several months. While it blows, the land becomes parched and brown, and some kinds of trees lose their leaves.

The winter monsoon brings the dry season. Farmers can do little during this time unless they have water to irrigate their fields. In a few places, however, the winter monsoon blows across seas. In doing so it gathers moisture. Then, as it blows across land, it drops the water. One such place to which the winter monsoon brings rain is the island of Ceylon in the Indian Ocean.

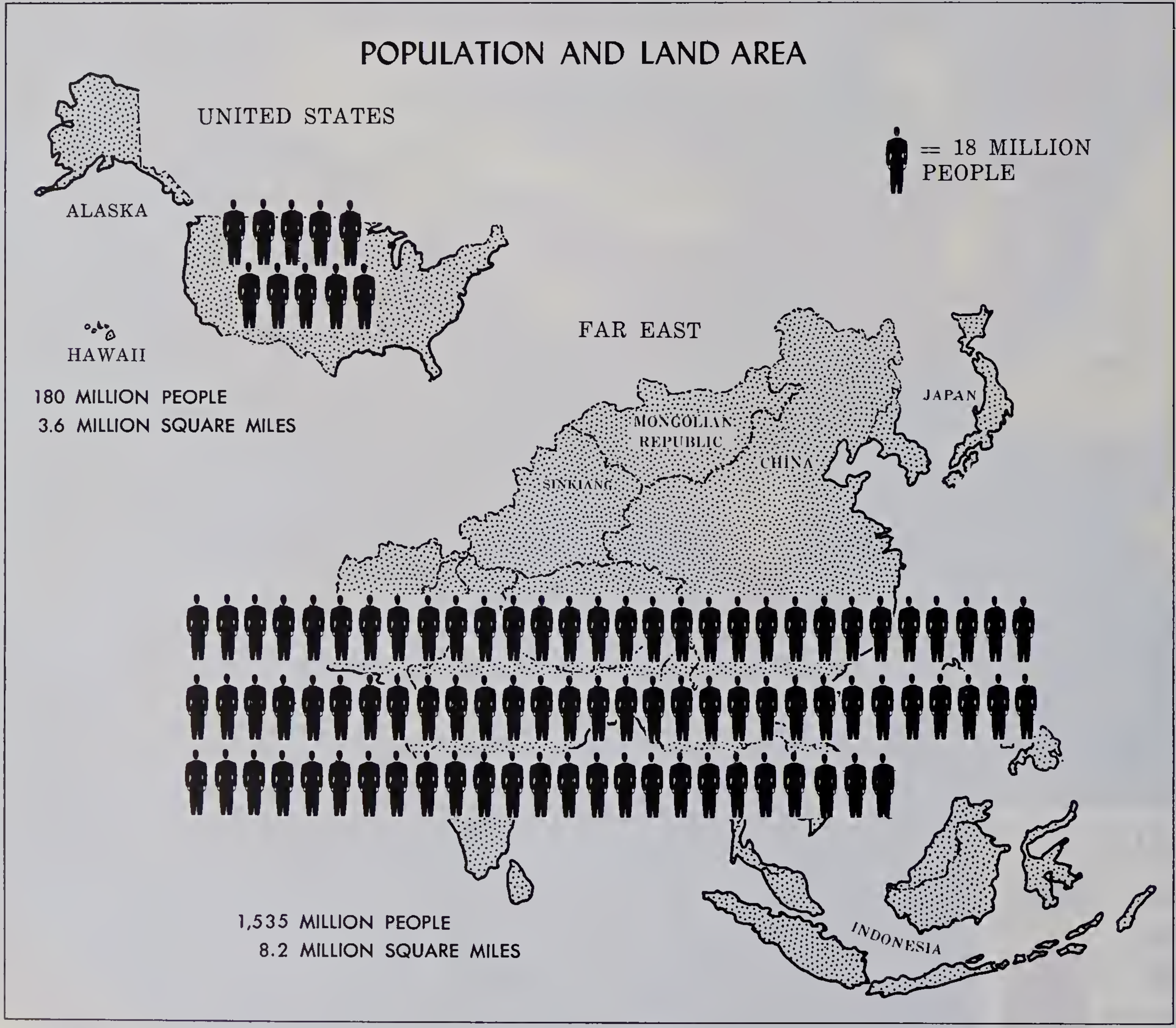

ASIA 1962
Plains 🟩
Plateaus 🟨
Hills
Mountains
Capitals of Countries ⊛
One inch stands for 870 miles
0
870
ARCTIC OCEAN
Pole
ATLANTIC OCEAN
NORTH AMERICA
Bering Strait
BERING SEA
SEA OF OKHOTSK
UNION OF SOVIET SOCIALIST REPUBLICS
EUROPE
Moscow
Volga River
Ural Mountains
Ob River
Yenesei River
Lena R.
Yakutsk
Arctic Circle
Novosibirsk
Lake Baikal
Amur River
Vladivostok
SEA OF JAPAN
JAPAN
Tokyo
KOREA
Pyongyang
Seoul
MANCHURIA
MONGOLIA
Ulan Bator
THE GOBI (DESERT)
Peking
Tientsin
CHINA
Hwang Ho (Yellow River)
Shanghai
Nanking
Yangtze Kiang
Chungking
Canton
Hong Kong
TAIWAN
CHINA SEA
PACIFIC OCEAN
REPUBLIC OF THE PHILIPPINES
Quezon City
Manila
TIBET
Lhasa
Himalaya Mts.
TURKESTAN
AFGHANISTAN
Kabul
PAKISTAN
Indus
Karachi
New Delhi
Ganges River
Brahmaputra River
Tropic of Cancer
INDIA
Calcutta
Bombay
ARABIAN SEA
BAY OF BENGAL
CEYLON
Colombo
BURMA
Irrawaddy
Rangoon
Mekong
THAILAND
Bangkok
LAOS
Hanoi
VIET NAM
S. VIET NAM
CAMBODIA
Saigon
MALAYA
Strait of Malacca
Singapore
NORTH BORNEO
BRUNEI
SARAWAK
Kuching
Sandakan
BORNEO
CELEBES
SUMATRA
REPUBLIC OF INDONESIA
Jakarta (Batavia)
JAVA
INDIAN OCEAN
Equator
AUSTRALIA
BLACK SEA
CASPIAN SEA
ARAL SEA
Caucasus Mts.
TURKEY
Ankara
SYRIA
JORDAN
IRAQ
Baghdad
Euphrates
Tigris R.
IRAN
Tehran
Persian Gulf
SAUDI ARABIA
Riyadh
Mecca
YEMEN
San'a
OMAN
ADEN PROTECTORATE
Aden
Gulf of Aden
AFRICA
0°
20°
40°
60°
80°
100°
120°
140°
160°
180°

The monsoon winds blow over much of India, East Pakistan, Southeast Asia, southern China, southern Japan, and part of the East Indies. They do not reach northern China or northern Japan. These northern regions have four seasons rather than a wet season and a dry season.

Kinds of crops

Nearly all parts of the Far East grow crops that are used directly for human food. There are so many people to be fed and the farms are so small that land cannot be spared for pastures or to grow crops to feed to animals. For this reason, most of the farm land is used to grow such foods as rice and vegetables.

This does not mean that there are no animals in the Far East. Some farmers own a water buffalo to help in the farm work. The water buffalo came originally from India and, as its name suggests, it likes swampy places. A farmer who owns a water buffalo uses it in plowing the wet rice fields. Poorer farmers have to spade the fields by hand. In



Rice is grown on these terraces on the island of Java. Java is both hilly and densely populated so that even the steepest slopes are put under cultivation.

United Nations Photo

many parts of the Far East pigs are kept because they can live on waste materials or scraps. Many families own pigs.

Lands of rice

The monsoon lands of the Far East are rice lands, and this grain is the main food of millions of people. More than nine out of every ten pounds of the world's rice crop is grown in the Far East. Because Burma and Thailand produce more rice than their people need, these countries export rice to India, China, and Japan.

Flat lands are best for rice because they can easily be flooded with water. The heavy monsoon rainfall helps to keep the fields flooded. Irrigation water is added to the rice fields in places where the monsoon rains are not heavy enough. In the Far East the very flat lands, such as river plains and deltas, are usually planted almost entirely in rice.

If a farmer does not own flat rice land, he farms the hillsides by means of terraces, which extend like steps up the hill. Some terraces in Java rise for hundreds of feet above the valleys. Water is brought to the terraces from ditches around the hill. Or men may carry it up in buckets which they have filled in the stream from the valley below. No amount of labor is too much in the Far East to raise the needed rice. A good food year is the same as a good rice crop. Famine or near-famine follows a poor crop.

Do you know—

1. What are the five great regions of the Far East? How many people live there?
2. What ancient civilizations developed in the Far East?
3. What are the monsoons?
4. Why is rice the most important crop in the Far East?

Ewing Krainin

This village is typical of many in India today. But modern machinery, like this American-made bulldozer, is being used increasingly to raise more food products for India's growing population.

2. THE SUBCONTINENT OF INDIA

The subcontinent of India is separated from the rest of Asia by high mountains, deserts, jungles, and water barriers. The only easy way to reach India by land is through the Khyber Pass (see the map, page 310).

NATIONS ON THE SUBCONTINENT

The subcontinent of India contains two large nations, the Republic of India and the Republic of Pakistan. On the southern slopes of the Himalayas are two small nations, Nepal and Bhutan. In the historical parts of this unit, we will refer to the whole area as India.

India has had a long history. For most of this period its people have been governed by other nations. In recent times the people have become self-governing. The region was granted independence by Great Britain, and in August, 1947, the two nations of India and Pakistan were born.

The two new nations were formed because of differences in religion. The Republic of Pakistan is a Moslem country. In fact, its nearly 87,000,000 people make it the largest Moslem nation in the world. The rest of the subcontinent is the Republic of India. Most of its people belong to other religious groups.

The Republic of India stretches southward from the Himalaya Mountains and includes most of the peninsula. The nation is about one third as large as the United States and has almost 409,000,000 inhabitants. New Delhi is the capital. This city, near the old city of Delhi, became the capital during the later years of British rule in India.

The Republic of Pakistan, as you see from the map, is in two parts. West Pakistan is mainly a desert land in the northwestern part of the subcontinent. The desert is a continuation of the deserts of the Middle East. The Indus River waters part of the desert. The people of West Pakistan live principally in the irrigated Indus Valley. Karachi, the seaport, is the largest city in Pakistan. East Pakistan is more than 1000 miles to the east in a monsoon area of the Ganges Plain. It is thickly settled.

INDIA'S PAST

India was a center of early civilization. Buried cities which flourished 5000 years ago have been excavated along the banks of the Indus River. Under deep layers of mud archaeologists found the ruins of brick houses, statues, pottery jars, coins, carts, and ornaments of gold and silver.

The earliest people of the Indus Valley resembled the early people of Mesopotamia. Those of southern India were probably Negroes, much like the people of Africa or New Guinea today. Descendants of these peoples still live in the southern parts of India.

The Aryan invasions

About 1500 to 1000 years before the days of Christ, groups of light-skinned people moved across the mountains into India. The invaders found a race of dark-skinned men living on the peninsula. They conquered the natives and settled down there. The newcomers called themselves *Aryans*. Aryan meant a man of good or noble family.

To keep control of the lands and people they had conquered, the Aryans developed a *caste system*. They divided the people into classes, or castes. The Aryans belonged to the top classes. The conquered peoples belonged to the lowest classes, or castes. Thus four main classes developed in ancient India. They were: (1) the *Brahmans,* who were priests; (2) the nobles, or rulers; (3) the farmers; and (4) the serfs, or natives, who worked as slaves for the Aryan conquerors.

The white marble Taj Mahal, one of the world's most beautiful buildings, is at Agra. It was built as a tomb.

The statue below shows a Hindu sacred cow. It is a symbol of peace.

Photos by Ewing Krainin

The caste system was and still is a part of the religious system of India.

Alexander the Great's invasion

In 327 B.C. Alexander the Great and his Greek army conquered Persia. Then they crossed the Hindu Kush Mountains and reached the Indus Valley. Early the next year his men built a bridge of boats across the Indus River and marched into northern India. But his soldiers complained so bitterly of the burning climate that he decided to return to Persia.

The Mogul empire

The coming of the Mongols to India was a different story. In 1525 a Mongol chieftain named Baber invaded India and conquered the northern half of the subcontinent. Baber, who was a Moslem, set up a Moslem nation. It is known in history as the Mogul empire. This empire lasted for more than 300 years. During this time the Moslem religion spread over northern India.

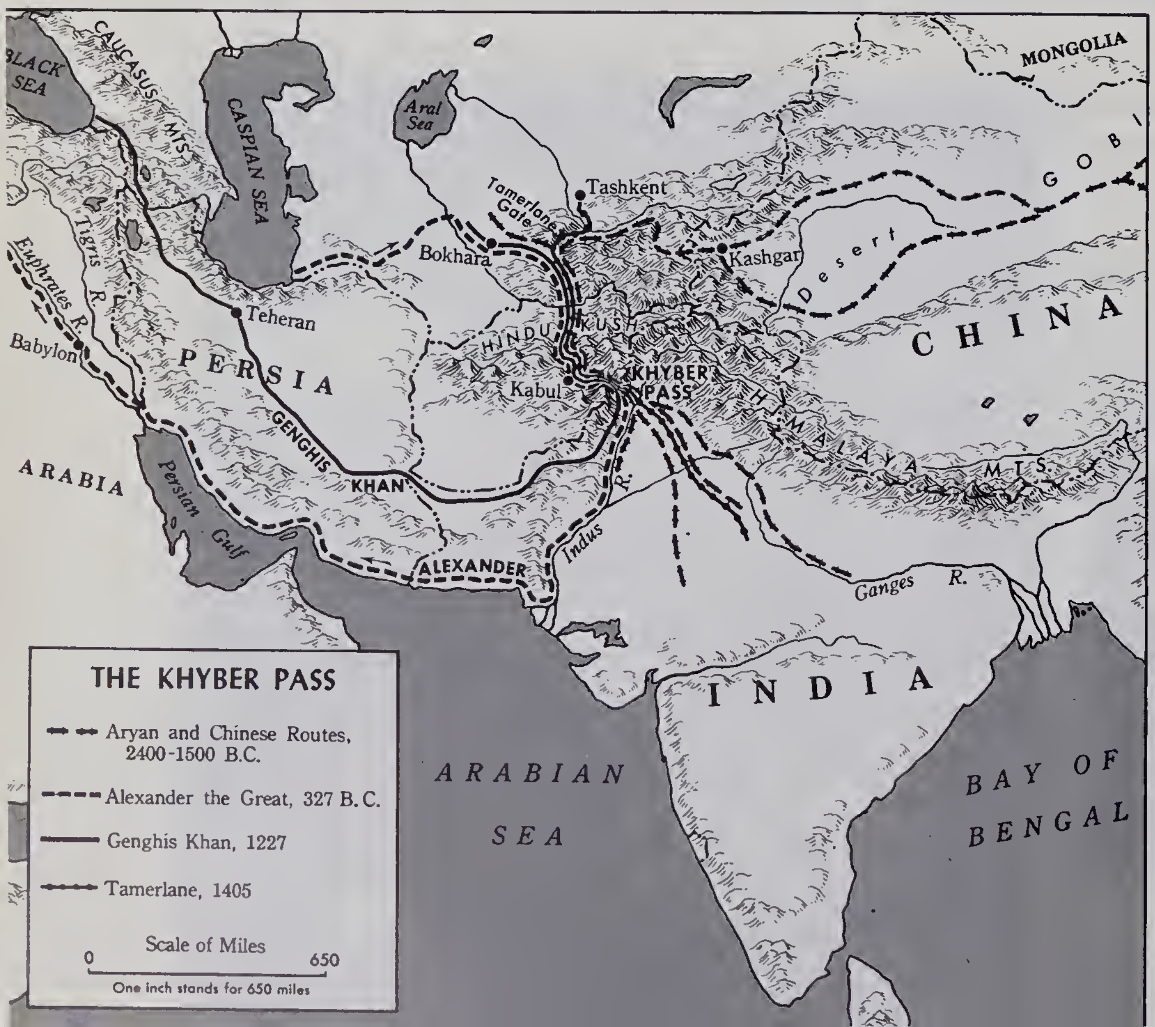
Europeans in India

Vasco da Gama, a Portuguese navigator, sailed around the southern tip of Africa and reached India in 1498. He was the first to find a sea route from Europe to India. Columbus, you remember, was seeking a way to India when he discovered the New World.

Portugal established colonies in India and built up trade with them. Later, French, Dutch, and British traders went to India.

The British in India

In 1600 British businessmen organized the East India Company to handle trade with India. They took possession of Bombay and founded Madras. Later, they built Calcutta and made it their headquarters in India.



Often in the past Khyber Pass has been the gateway by which invaders entered India. What invasions are shown here and when did they take place? Locate the ancient cities of the Indus Valley on the map.

The East India Company built docks and warehouses in the ports and made trade agreements with many native rulers. With the help of the British army the company ruled much of India and kept the peace. Keeping the peace helped trade and business.

In 1858 the British government took over the East India Company's lands. British India was then governed by a viceroy. The rest of India was divided into about six hundred states, under Indian rulers. These rulers were called by such titles as prince and *maharajah.* The maharajahs and princes dressed richly and lived in fine palaces. The British built roads, railroads, and schools and improved the sanitary conditions.

India was ruled by the British and by native rulers for nearly one hundred years. One reason why India remained divided was that the native rulers liked to rule their own territories and to live like princes. The British supported them in this while they themselves engaged in trade.

Another reason why the people of India were divided was the lack of a common language. This prevented them from exchanging ideas. Of the nearly two hundred languages of India, two are spoken by large numbers. Twenty are spoken by more than a million people each. Each language, moreover, has many *dialects.* A dialect is a variation of a language which is spoken by the people of a small region. The lack of a common tongue, which all the people can understand, makes it hard to unite the new nation.

A third reason why British rule lasted so long in India is the caste system of the Indian religion. The caste system kept the ruling class small and strong. The upper castes did not want to give up their power.

A fourth reason for the lack of unity was that many Moslems lived in northern India. But the Moslems were greatly outnumbered by other Indian groups. They feared that if the subcontinent became free they would have no voice in the government. That matter was finally settled by the formation of two nations after the British withdrew.

The desire for independence had been growing in India for many years. The British tried to satisfy the demands for freedom by allowing the Indians a small part in the government. But this did not satisfy them.

The outstanding leader of the freedom movement in India was Mohandas K. Gandhi. Gandhi was a lawyer who had received his training in England. He believed that India should be free, but he did not favor revolution by war or by rioting. Instead he proposed to embarrass the British government in India by refusing to co-operate with it. He advocated a plan of *passive resistance.* He said that the people of India should refuse to hold office, to attend school, to pay taxes, and to buy British goods. Some people, influenced by Gandhi's teachings, actually sat down on railroad tracks, thus making it impossible for trains to run. By their passive resistance the Indians made it hard for the British to govern India.

The Indian leaders also called meetings, or congresses, to talk about freedom. Thus the freedom movement became organized. In 1935 Britain gave India a new constitution. The new constitution gave more Indians a voice in the government.

Freedom at last

Indian soldiers fought loyally in the British-Indian armies in World War II. After the war the British withdrew from British India, and the Indian leaders took control. The Indian leaders also took over the kingdoms of the native rulers, some of whom

Ewing Krainin

Delicately carved arches and towers like these are characteristic of Hindu temples and old palaces. Such architecture may be seen in many of India's cities. This photograph of Udaipur, in western India, also shows the lake on which the city is located.

gave up their lands easily. The native rulers who resisted had their lands taken by force.

Under British rule a considerable number of Indians had been trained in law and government. Some of them had studied in England. Thus, when the British left, Indian officials were able to direct the new republic.

THE REPUBLIC OF INDIA

Nearly all parts of the Republic of India are densely populated. But the greatest population densities are on the flat and rich Ganges Plain. Other areas which are crowded with people are found on the eastern side of the peninsula, along the Bay of Bengal. Most of the people are *Hindus,* who support the caste system. Smaller numbers are believers in other religions, including Christianity.

Hindu ways of living

Hinduism as a religion and as a way of life developed in early times in India. This religion has many branches, but all of them emphasize peace and a quiet way of life.

Hindus do not worship a Supreme Being as do Moslems, Hebrews, and Christians. Instead, Hindus believe in many gods. They consider certain places as holy or sacred. One of these is the Ganges River, often called "Mother Ganges."

Many Hindus place the good life above the acquiring of lands and possessions. They believe in using peaceful methods to achieve their goals. For this reason they resisted the British in peaceful, rather than warlike, ways. Because of their beliefs, few Hindus were in the British Indian army. The British-Indian army was made up of Moslems, Christians, and *Sikhs.*

The Sikhs are members of a religious group living in the northwest. The Sikhs believe in and worship one God, prohibit the worship of idols, and do not follow the caste system.

An important part of the Hindu religion, as we have learned, is the caste system. A person is born into the caste of his parents and can never change it. He marries a person of his caste and makes his living doing the kind of work that his caste allows him to do. Based on occupations, about 2000 castes now exist. Members of the top caste, the educated leaders of the nation, are called Brahmans. The lowest group is made up of the "untouchables." The untouchables number more than 50,000,000 people.

In some villages untouchables must live apart from other people. An untouchable, as the name suggests, must not touch members of a higher caste, especially the Brahmans. He must not even pass near enough to allow his shadow to fall upon them. The hardest and most unpleasant tasks are performed by the untouchables.

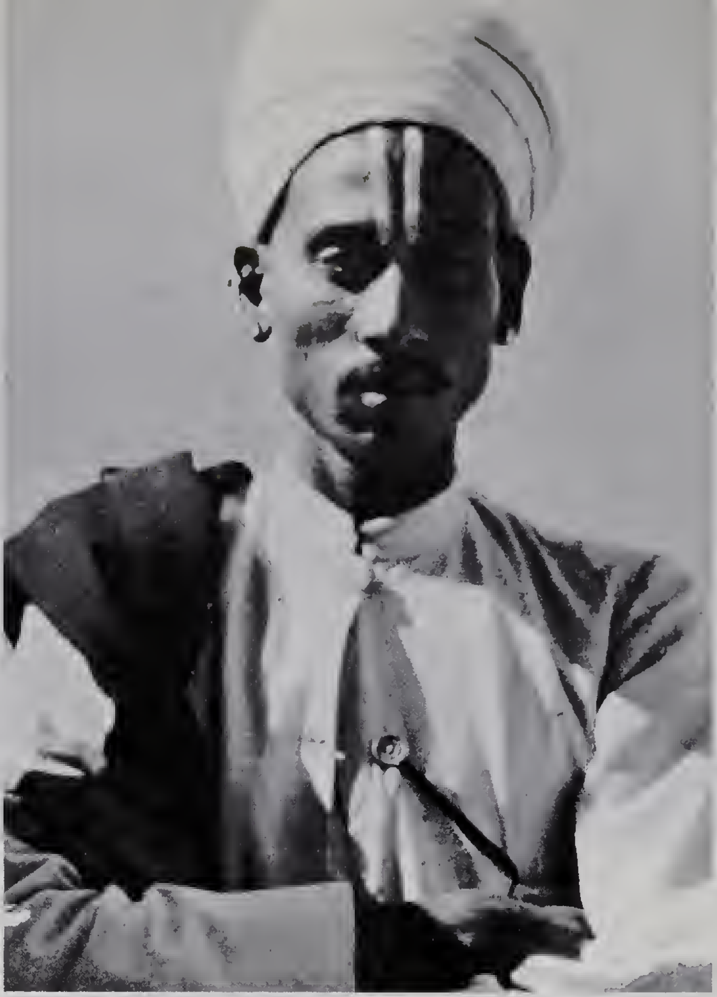
The new government has passed laws doing away with the caste system. It feels that such a system does not belong in a republic. But changes of this sort in a way of life that has existed for hundreds of years are slow.

Visitors to the Republic of India can see many evidences of Hindu beliefs in the cities and in the countryside. Cattle are considered sacred and may not be killed for any reason. Most of the cattle are the hump-backed kind called *zebus*. The zebus are used as work animals when they are young. After they grow old, they are allowed to wander over the country and through city streets until they die.

The Hindus respect all animal life. Even dangerous animals are not killed. Snakes are allowed to remain in the fields or to live on the thatched roofs of village huts. The result is that hundreds of persons die each year from the bites of poisonous snakes.

Life in an Indian village

Any village on the plain of the Ganges River near Calcutta looks like a small forest as the traveler approaches it. The reason is that the huts of the village are shaded by palms and other tropical trees thickly crowded together. Inside the village, the great *banyan* trees are most striking. The



Ewing Galloway

Caste marks can still be seen in modern India. This Hindu has one on his forehead.

This Indian woman belongs to the lowest group, or "untouchables," in the caste system.

Gendreau

India's legislature meets in this building, which is the House of Parliament in New Delhi. The lower house is the House of the People. The upper house is the Council of State.

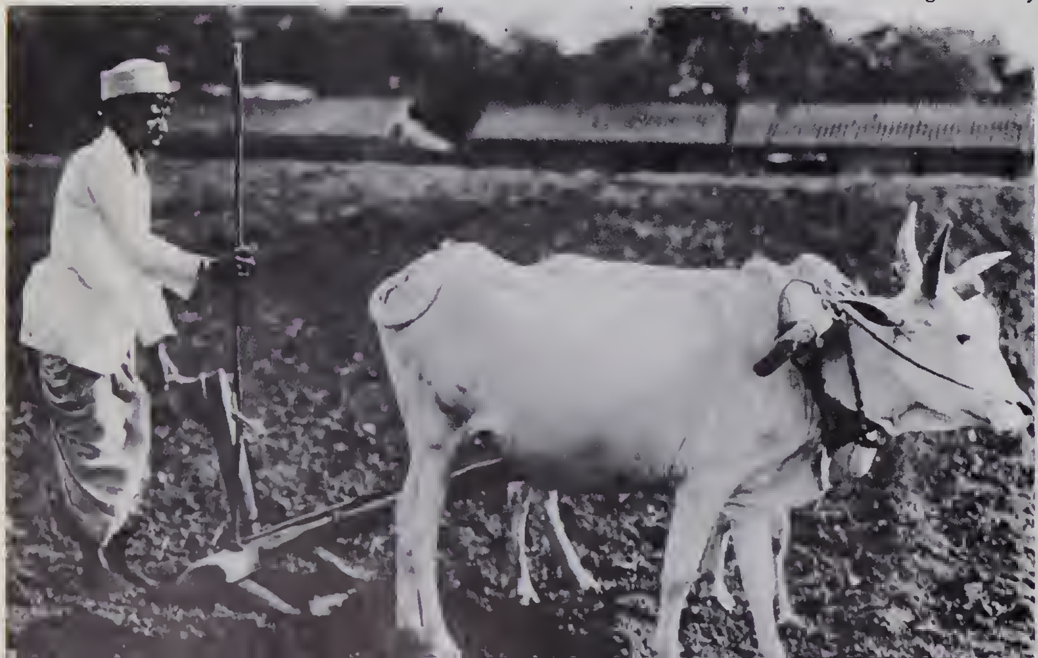
Information Service of India

banyan tree has many roots. Some of the limbs send out shoots which turn downward and develop roots in the ground. Other roots produce separate trunks. A single banyan tree may in time spread over an area as large as a city block and have two dozen or more separate trunks. Some banyan trees are so large that merchants sit between the trunks as they display their goods. In some villages a great banyan tree may be large enough to allow all the villagers to assemble beneath it at once.

An Indian village itself is a very crowded place. The streets are really unpaved paths which are hardly wide enough for an oxcart. There is an open-air market place. The streets are filled with people. Cattle roam about on them. The village has no sewer system and no sanitary way to dispose of garbage. In the poorer sections, where the untouchables live, the streets are even more crowded and dirty.

The houses, which are really huts, are made of wood or of dried mud. The roofs of

Ewing Galloway



Nearly four out of five Indians are farmers, but most farms are very small. Modern farming methods do not work well on such small farms. Therefore, most farmers in India are still using primitive tools such as the wooden plow shown in the photograph.

the huts are thatched with rice straw, tropical grasses, or palm leaves.

The village, unless it is located on a stream, has a man-made pond near it to supply drinking water. The pond serves many other purposes, too. People bathe in it and wash their clothes in it. Cattle drink from it and often wallow in it. During the dry season water for irrigation is drawn from it.

Most of the men are farmers who go out to their fields each morning and return to the village each evening. But some villagers are merchants. They display their goods in market places on the streets and beneath the banyan trees.

Some people earn a living by making sugar in a sugar mill. They buy sugar cane from farmers. Then they use oxen or cattle to turn the mill wheels which grind up the sugar-cane stalks. After this they boil the stalks and strain the juice. They boil the juice again until it crystallizes into sugar. Nearly every village has a sugar mill.

Other persons make a living by running an oil mill. In these mills, oil is squeezed from peanuts or from different kinds of oil seeds. The mills produce oils for cooking. Such oil mills supply the local market for oil in nearly every Indian village.

A third activity in nearly all villages is the preparation of fuel. This work is performed by the untouchables. They collect the dung of cattle, mold it into cakes or bricks by hand, and let the cakes dry in the sun. After the cakes have dried, they are sold for fuel. Cooking in an Indian village is done over a fire which burns this kind of fuel. This fuel is also used to heat the homes on the few days each year when it is cold enough to make heat necessary.

Some farmers own cattle to help them in their farm work. Other farmers may be prosperous enough to have a water buffalo. This animal is at home in the wet rice fields, for it wades through the water and deep mud easily. The Indian farmer's tools are usually simple ones—rakes, hoes, wooden plows tipped with iron, sickles, and other hand tools. Modern machinery is almost never seen in Indian villages.

Money crops

Indian farmers grow most of their own food. In spite of their small farms, they produce enough to be able to sell some of it. No farmer grows much more than his family needs. But when the surplus of millions of farmers is added together the total amount is large. It was the trade in such products that first interested the British in India.

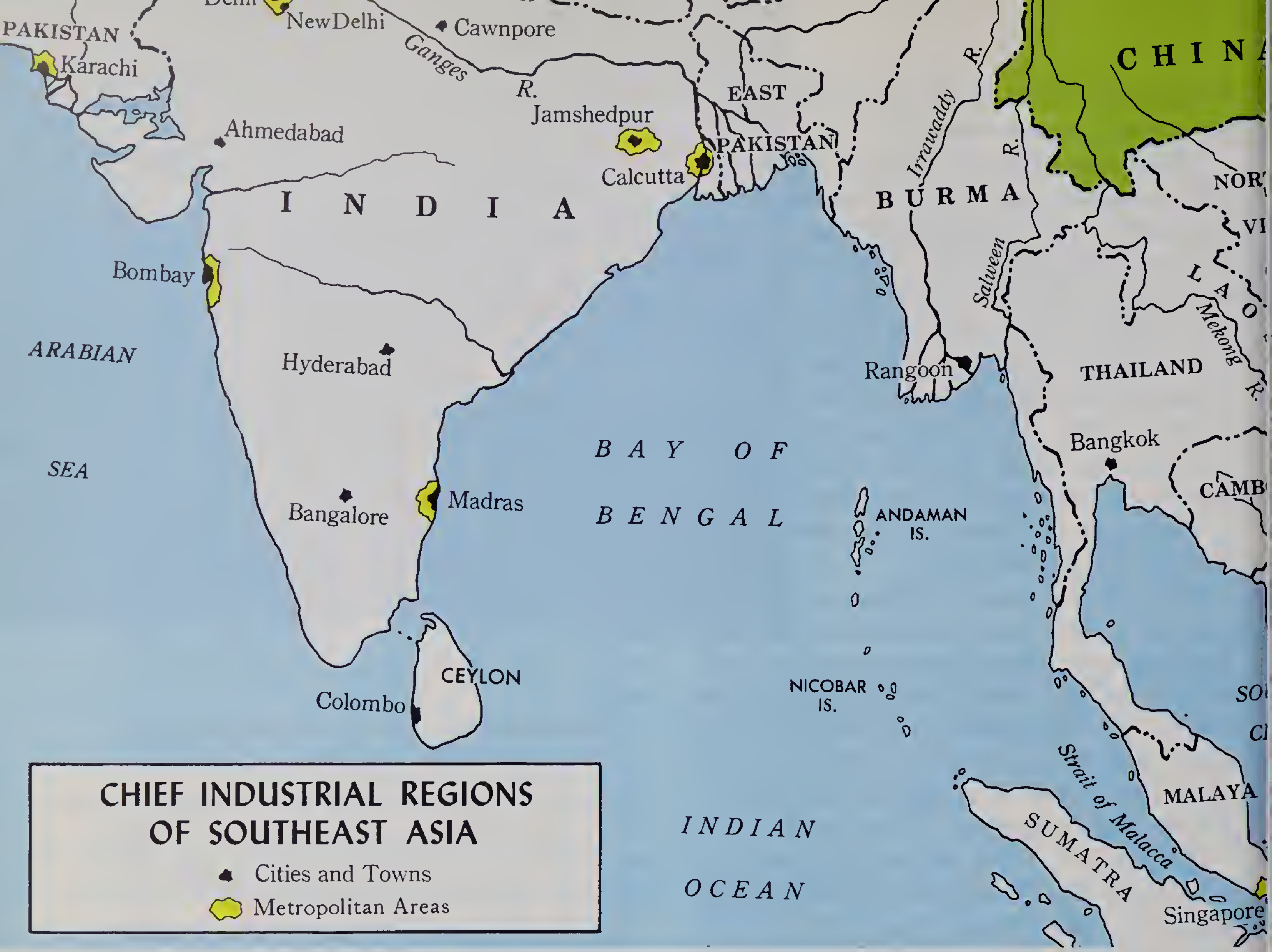
The money crop varies from place to place. On the Ganges Plain, near Calcutta, the crop is jute. The long fiber of this coarse plant is made into heavy sacks, the lining of rugs, and burlap bags. Large amounts of jute are grown in India and in East Pakistan.

Another important money crop is cotton, which is grown principally on the plateau. Enough cotton is grown to make the Republic of India the world's fourth cotton-growing country. Much of the cotton is sent to Bombay for export or for manufacture there.

Other money crops are peanuts, oil seeds, and flax seeds. The nation leads all the countries of the world in the growing of peanuts. Tea is an important money crop in northeast India, in the Brahmaputra River area.

Food crops

The monsoons drop heavy rains on the Ganges Plain and on the western and eastern coasts of the peninsula. Rice is the important food grain of these areas. Farther up the



CHIEF INDUSTRIAL REGIONS OF SOUTHEAST ASIA

▲ Cities and Towns

⬭ Metropolitan Areas

Ganges Plain, toward West Pakistan, there is less monsoon rainfall. Wheat replaces rice as the leading crop in this drier region.

The interior of the peninsula is dry. Indeed, some parts are very dry. The summer monsoons bring no moisture. In this area the farmers raise grain sorghums and millets. These grasslike plants, which can stand very dry weather, produce small round seeds that are good for food. Some areas are irrigated. The villagers have built tanks, or ponds, near by. Where there is enough water, rice is grown. In times past the people in this area suffered from famine after very dry years. But now, with a good railway system, food is shipped to this area when the people fail to produce enough food crops.

Life in the cities

Bombay and Calcutta are the largest cities in India. Calcutta is not quite as large as Chicago. Bombay is the fifth largest city in the world. Bombay, a great seaport, has the finest harbor of the subcontinent. Calcutta is on the Hooghly River, a branch of the Ganges. Ocean ships sail up the Hooghly to the docks of Calcutta and make the city the principal seaport of eastern India.

Calcutta was once the busiest city in India. After the founding of Pakistan, East Pakistan began to use other seaports as well as Calcutta. As a result, Calcutta is not as busy a city as it once was. Bombay has recently passed Calcutta in size and is now India's largest city. Madras, which is India's third city, is the most important seaport in the south.

Bombay, Calcutta, and Madras also do much of the manufacturing in India. But less than one person in every one hundred finds employment in factories. The country is just now going through the Industrial Revolution. Textiles are the principal manufactured products, but new iron-and-steel mills and other plants that make chemicals and fertilizers have been started. A large locomotive works has also been opened.

The Ganges Plain is dotted with cities, as you can see on the map on page 316. Benares, a sacred city on the Ganges River, is about 500 miles from Calcutta. Benares is visited each year by millions of Hindus, who come to bathe in the Ganges River, to drink the river water, and to carry jugs of the water home to friends. Three miles of the river bank are lined with Hindu temples, from which broad flights of steps lead to the river. Down these steps millions of pilgrims descend to the water. Many Hindus who are ill journey to Benares to die. After death, their bodies are burned and the ashes are then carefully scattered in the sacred waters of the Ganges River.

Agra, Delhi, and New Delhi, the capital, are on the Jumna River. The Jumna is one of the tributaries of the Ganges River.

FPG

The old city of Delhi was once India's capital. Then the new capital, the large and modern city of New Delhi, was built near by. The Hindu temple shown is in New Delhi.

THE REPUBLIC OF CEYLON

After being a British colony for one hundred and fifty years, Ceylon gained its freedom. It set up its own government in 1948. Ceylon is about the size of West Virginia with a population of about 9,612,000. Ceylon is like India in some ways and like the East Indies in others. The island, as we have learned, receives rainfall from both the summer and the winter monsoon.

Ceylon differs from India in having many large plantations instead of small farms. On the plantations near the seacoast grow coconut palms and rubber trees. In the hills are the great tea estates from which the British obtain much of the tea they use. Colombo is the leading seaport and the capital of Ceylon.

THE REPUBLIC OF PAKISTAN

Pakistan is a little larger than Texas and Oregon combined. Its population is nearly 87,000,000. The people of West Pakistan live mainly along the Indus River.

The products of Pakistan

Cotton, wheat, and vegetables are grown there by means of irrigation. East Pakistan lies in one of the rainiest of the monsoon areas. Its farmers grow large crops of rice and jute.

The government is building new irrigation works in West Pakistan. Manufacturing, especially of jute fiber into burlap, is being encouraged in East Pakistan. This is done so that the jute will not be shipped out of the country to the mills in Calcutta.

Karachi is a busy seaport and Pakistan's largest city. In recent years it has become one of the greatest airway centers of southern Asia. Rawalpindi is Pakistan's capital.

Moslem ways of living

A village in Pakistan, especially in the east, looks much like an Indian village from a distance. But the village skyline is different, for the minarets and the domes of mosques rise above the houses. People wear the flowing robes of the old Moslem dress. There is no caste system or segregation in Pakistan. Nor are there sacred cattle roaming the streets.

In the countryside cattle, sheep, and goats are raised for meat. But, of course, as in all Moslem lands, there are no pigs.

On a tea plantation in Ceylon women pick the tea leaves and put them in baskets on their backs. The leaves are later dried, crushed to bring out the flavoring juices, and then graded for export.

Ewing Galloway

United Nations Photo

These coke ovens are in India's largest iron-and-steel plant, at Jamshedpur, near Calcutta. India has great iron and coal resources and is starting to expand its production of iron and steel.

THE FUTURE OF THE NEW NATIONS

India and Pakistan, as new members of the world family of nations, are busy with many problems. They are working to provide a better living for their people through better schools, health programs, farming methods, and irrigation. Fortunately, the British left the subcontinent with the best railroad system on the continent of Asia. Now the new nations are building roads for better transportation within their borders. A good start has been made on these building programs.

THREE MOUNTAINOUS LANDS

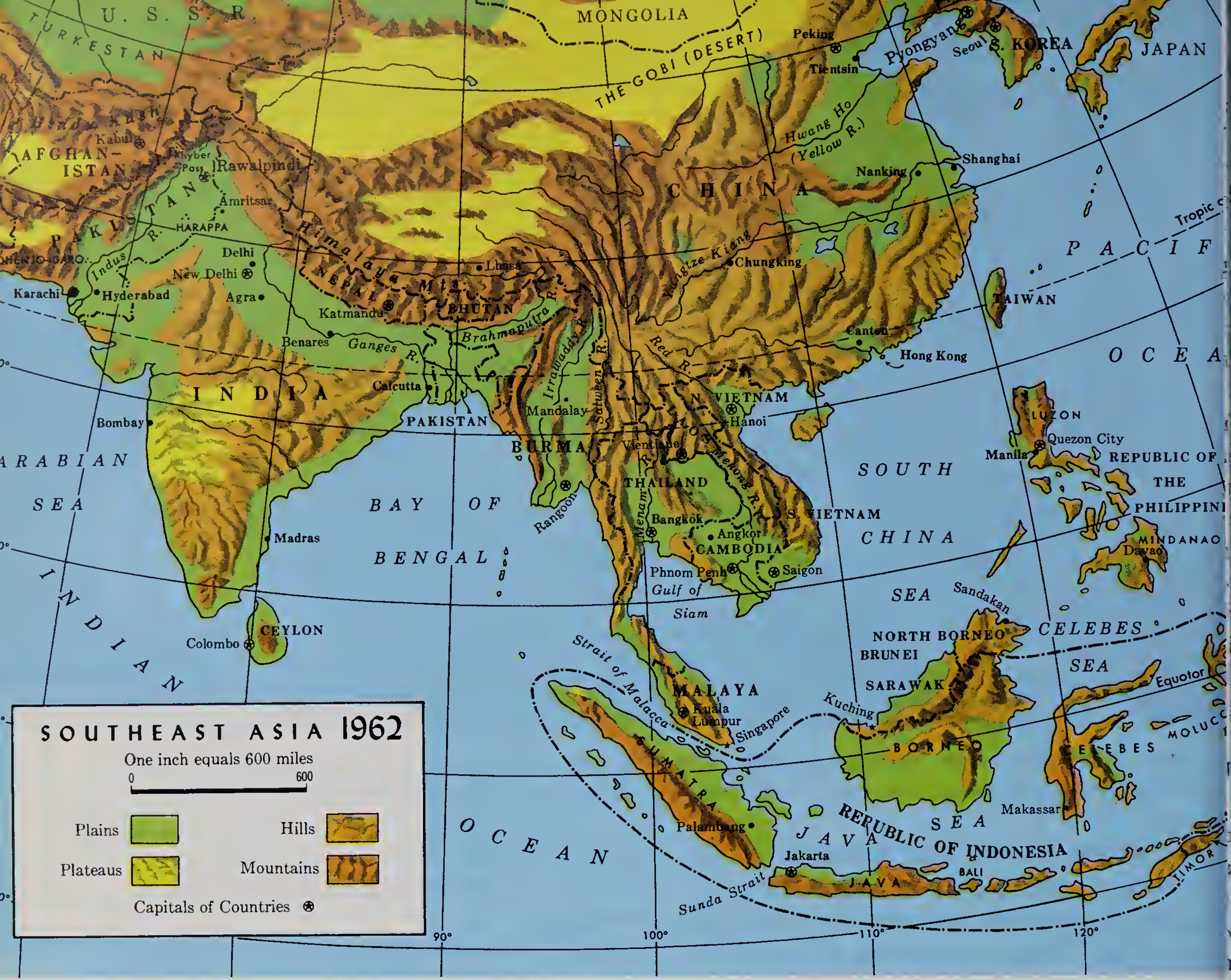
In the high Himalayas between India and China lie the three small countries of Tibet, Nepal, and Bhutan. Much of Tibet, often called the "roof of the world," is a high, windy plateau. On its southern border, which it shares with Nepal, towers snow-covered Mount Everest, the world's highest mountain.

Much of the land area of these countries is covered by thick forests. However, there are fertile valleys and terraced hillsides where rice, corn, sugar cane, and wheat are grown.

Nepal and Bhutan are independent countries, but Tibet is now under the control of Communist China. The people are chiefly of Mongolian origin. Most of them are followers of Buddha.

Do you know—

1. What two nations occupy the subcontinent of India?
2. How was the subcontinent settled?
3. What is the caste system?
4. How do India and Pakistan differ?



3. LIVING IN SOUTHEAST ASIA

A long and mountainous peninsula of Asia lies between the Bay of Bengal and the South China Sea. Find this region, known as Southeast Asia, on the map above.

Southeast Asia is divided into several countries. Follow the map on this page as we name them. Burma, the size of Texas, is on the eastern shore of the Bay of Bengal. The country is a republic, and the port city of Rangoon is its capital.

To the east and south of Burma is the kingdom of Thailand, formerly called Siam. Thailand means "land of the free." It has never been ruled by a European country. Bangkok is the capital and chief city.

Farther to the east is Indochina. During the more than sixty years that the French ruled this area it was called French Indochina. Indochina included the countries of Cambodia, Laos, and Vietnam. The Japanese seized the entire region at the beginning of World War II.

After that war the French again controlled Indochina. But Communist forces tried to take over, and for seven years the French fought a war to hold it. The fighting in Indochina ended in 1954 with a *truce*, or agreement to stop fighting. Under the terms of the truce the northern part of Vietnam was given to the Communists. A Communist dictatorship was set up in North Vietnam, with Hanoi as the capital. South Vietnam became a republic. Saigon is the capital.

The two countries of Cambodia and Laos also became independent. Each country is headed by a king and has an elected legislature, or lawmaking body.

Malaya is at the southern end of the long and narrow Malay Peninsula. For many years a British possession, Malaya gained its freedom in 1957. About 6,698,000 people live in Malaya, which covers an area as large as Alabama. Kuala Lumpur, in western Malaya, is the capital.

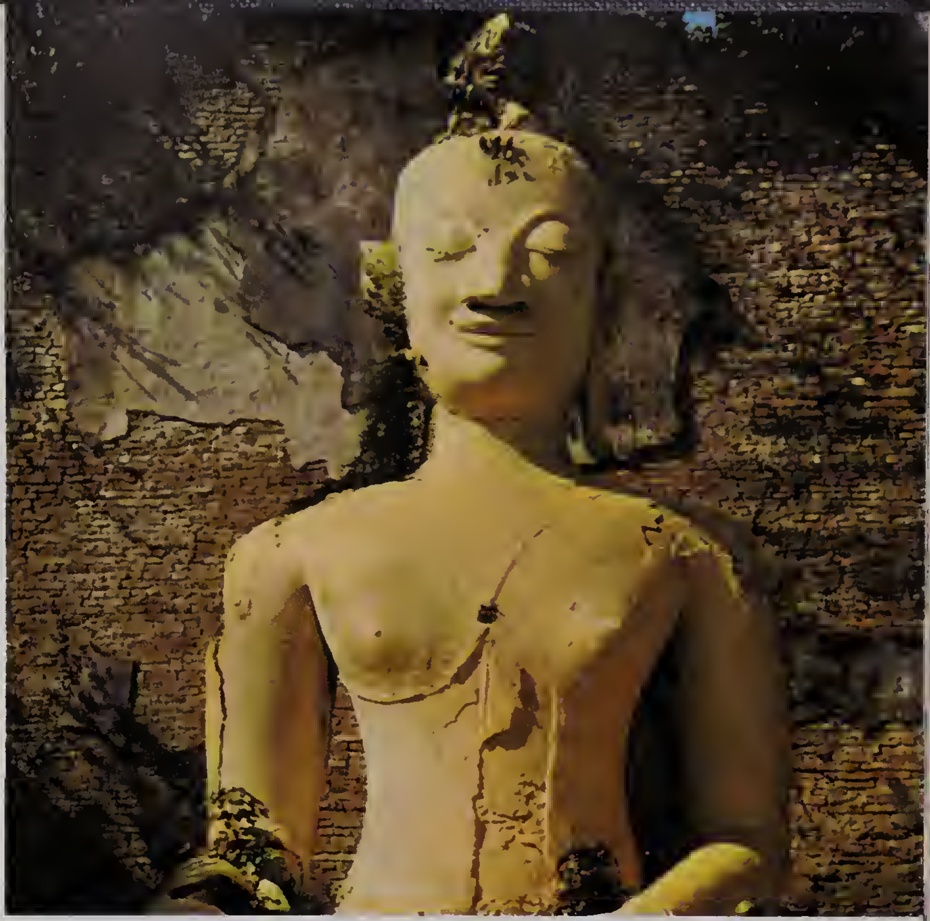
THE LAND

Southeast Asia, as a whole, is a mountainous, tropical land. The monsoon winds blow over the region, bringing a wet season and a dry season. So much rain falls during the wet monsoon that forests grow thickly on the mountains. Few people live in the hilly and mountain areas, where elephants, tigers, and other wild animals roam. There are large grasslands in Burma and in Thailand.

Southeast Asia has five great rivers, the Irrawaddy, the Menam, the Mekong, the Salween, and the Song-koi, or Red River.

THE PEOPLE OF SOUTHEAST ASIA

About 90,000,000 people live in Southeast Asia. The five great river valleys contain the densest populations and are the chief rice lands. The inhabitants of Southeast Asia, as a whole, are more like Orientals, or Mongolians, than like the people of India.



Ewing Krainin

This statue of Buddha, a religious leader who was born in India, is in Indochina. Buddha has many followers in the Far East.

Buddhism, the chief religion

The people of Southeast Asia also differ from those of India in religion. Most of them are Buddhists, followers of Gautama. Gautama is known as Buddha, which means the "Enlightened One."

Gautama lived in India about 600 years before the time of Christ. He traveled throughout India, preaching that "the true life is peace." To have peace, Buddha said, man must be unselfish and must love everyone. Anger should be overcome by kindness.

After Buddha died, his followers made him a god. They built statues of him and worshiped in temples erected in his honor. Today images of Buddha and Buddhist temples are found throughout Southeast Asia. Buddhism began in India, but it has almost died out there. Today, however, it has become the chief religion of Southeast Asia.

Standard Oil Co., (N.J.)

Republic of Indonesia Information Office

In the factory in Indonesia shown above, many umbrellas are manufactured. What weather conditions would cause a need for umbrellas?

The irrigation ditch, shown on the left, is of help to both the farmer and his wife on this Indonesian island. Can you tell why?

Houses on stilts

The great rivers of Southeast Asia rise high and flood the land during and after the heavy rains brought by the summer monsoons. Farmers who still live along the rivers build their houses on stilts above flood level.

The houses of the villages in the mountainous jungle areas are often built high above ground, too, but for a different reason. Homes built on stilts are protected from tigers and other wild animals.

THE PRODUCTS

Rice, rubber, tin, and teakwood are the main products exported from the countries of Southeast Asia. Many people make their living growing rice, working on rubber plantations, mining tin and working in tin smelters, or cutting teakwood in the great teak forests of Southeast Asia.

Great rice lands

Several countries of Southeast Asia grow more rice than the people need. They are thus able to export rice to India, Indonesia, China, and Japan to help feed these neighboring nations. The rice is shipped from Rangoon, Bangkok, Saigon, and Hanoi. Can you name the river valleys back of each port? Thailand and Burma export much rice.

Rubber and tin

The rubber plantations are within one hundred to two hundred miles of the great port of Singapore. They are in Malaya, in southern Thailand, and on the island of Sumatra, in near-by Indonesia. Find these on the map on page 320. Tin is mined in the same region, but mainly in Malaya and Thailand. Most ships loading cargo at Singapore carry rubber or tin to world markets.

Forests of teak

Burma and northern Thailand have great forests of teak. Teakwood is used in shipbuilding because it will not rot, as most wood does, when it is drenched with salt water. Teak is used mainly in constructing the decks and the other parts of the ship where waves come in contact with the wood. In the forests both elephants and modern trucks carry the teak to the lumber mills. At the mills, elephants are often used to stack the teak logs into piles. Rudyard Kipling, an English poet who spent much of his life in the Far East, wrote about "elephants a-piling teak."

CITIES OF SOUTHEAST ASIA

Southeast Asia has a number of large cities. These cities, all in or near tropical regions, are markets for tropical products. The business streets in most of the cities have roofs, or arcades, as shelter from the tropical sun.

Singapore

Singapore is the largest city in Malaya. It is located on Singapore Island, just off the southern tip of the Malay Peninsula and the continent of Asia. The people of the island of Singapore gained independence from the British in 1959.

The city of Singapore is on the crossroads of sea routes. Every vessel sailing south of Asia passes by or stops at its docks. It is a *free port.* A free port is one where goods may be landed, handled, stored, and shipped out again without the payment of taxes, or duties. Because of its location and because it is a free port, Singapore is one of the busiest seaports in the world. It is the center for the export of rubber, tin, spices, pineapples, and other products from Southeast Asia and Indonesia.

Factories, including canning, rubber processing, and tin smelting, have grown up in Singapore. It has the largest tin smelter in the world. English, Malayans, Indians, Indonesians, and Chinese live and work in the city of Singapore.

Bangkok

Bangkok, the capital of Thailand, is a city the size of Detroit. It is called the "Venice

Screen Traveler from Gendreau

Ships from all over the world can be found in the fine harbor of Singapore. Singapore means "city of the lion." A free port, it is often called the gateway to the Far East. Most of the population is Chinese.

of the East" because of its many canals. Many families in Bangkok live in boats on the canals, instead of in houses. The homes of other families in the city are set up on stilts. Some canals are used as highways by boats that bring produce to city markets.

Bangkok is also a railway and an industrial center. Its airport is one of the leading airports in the Far East.

Rangoon

Rangoon, the capital and chief port of Burma, is a little smaller than Milwaukee. Tea and rice are Rangoon's chief exports. The city has lumber, oil, and rice mills. Factories manufacture pottery and silk and cotton cloth.

The great shrine of Buddha attracts thousands of worshipers to Rangoon. The spire, which is tall and gold covered, can be seen from miles away at night when the floodlights shine upon it.

Do you know—

1. What countries are in Southeast Asia? How many people live there?
2. What are Southeast Asia's chief products?
3. Why is Singapore called a free port?

Words and Terms to Remember

zebu
truce
Sikhs
Hindus
Aryans
dialect
monsoon
maharajah
free port
banyan
caste system
Brahmans
subcontinent
passive resistance

A Matching Game

Number a paper from 1 through 14. After each number write the word or term from the list above which matches the definition.

1. A hump-backed kind of cattle found in India
2. A title held by a native Indian ruler
3. A large East Indian tree with many trunks
4. An organized way of opposing a government by quietly refusing to obey its laws
5. Members of the highest caste in India
6. The members of a small religious group in India who believe in one God
7. A wind that blows during a certain season
8. A place where goods may be landed, stored, and shipped out again without the payment of taxes
9. A large land mass that is shut off by natural barriers such as mountains from near-by lands
10. People who invaded India from the North
11. A special form of a language which is spoken in a small region of a country
12. A system by which the people of India were divided into groups, or classes, to which they belonged by birth
13. In India, the largest religious group in the caste system
14. An agreement between groups of people or between nations to stop fighting

Melville Jacoby from Guillumette

In this part of North China the hills look bare because there are few trees. Although the soil is fertile, the region lacks water. Farmers fear the long dry spells that are frequent here.

4. CHINA, PAST AND PRESENT

China is the third largest country in the world in area and the largest in population. Only the Soviet Union and Canada have more territory. China has 679,000,000 people, including the Chinese on the island of Formosa. There are also almost 12,000,000 Chinese citizens who live outside of the country. Many of these Chinese are prosperous businessmen in Southeast Asia. About one person in five in the world is Chinese.

China is a large country. Its length from north to south is as great as that from Hudson Bay to Cuba. For this reason, the ways of making a living in northern China are different from those of southern China. From east to west, China extends across a distance as great as that from Florida to California. In this long east-to-west distance there are very great differences in rainfall. Parts of the east coast receive as much as 100 inches of rain a year from the monsoons. In contrast, large areas of the interior receive less than ten inches of rain each year and some areas of the high inland plateaus less than one inch.

CHINA'S PAST

The Chinese people have been living and farming in China for more than 4000 years. Scientists have discovered some of the oldest-known remains of man in northern China. Yet we do not know much about the history of the Chinese until about 1000 B.C. Chinese records, made on wooden tablets, have not been preserved as were the records of Egypt and of Mesopotamia.

Arrival of the Mongols

In the 1200's Mongols, from the dry lands to the west, invaded China and set up an empire. Kublai Khan, the ruler whom Marco Polo knew, was a Mongol emperor. The Mongols were a yellow-skinned people with

Black Star

The grandmother occupies a place of honor as this Chinese family eat their meal on board a junk in Hong Kong harbor. It is an old Chinese custom to respect elderly persons because of their wisdom.

almond-shaped eyes and straight black hair. Large numbers of Mongols settled in China. The result is that many Chinese have a Mongolian appearance.

Where the people live

Find Chungking and Peking on the map on page 305. Draw an imaginary line between these two cities. Northwest of this line China is either very mountainous or very dry. Some of the flat areas shown on the map are high and dry plateaus between mountain ranges. Tibet is more than two miles above sea level.

Throughout the dry and mountainous western half of China few people live. But the country will not support many. The people of this region depend mainly on their animals. Sheep, goats, yaks, and camels are the chief animals, but some people also have cattle. The animals furnish meat, milk, wool and hair, hides and skins for the people of these dry areas. Wild animals, such as tigers, leopards, bears, and wolves, roam about in the highest mountains.

South and east of our imaginary line from Chungking to Peking is old China or China Proper. This part of China is a rainy land in the monsoon region. The summer rainfall is from five to ten times heavier than it is in winter. China Proper is the China of rice, tea, and bamboo in the south, and of wheat, cotton, and soybeans in the north. In the rurals areas, the Chinese live and work on large collective farms, run by the government. The river valleys, deltas, and plains along the coast are teeming with people. Some flat plains, which are rich rice lands, have a population density of 2000.

The Chinese empire consisted of China Proper and neighboring regions which were under its control. Two of these, Tibet and Mongolia, are shown on the map. Today Mongolia is a puppet nation of Soviet Russia, while Tibet is under China's control.

Religious beliefs and practices

The people of China are mainly followers of Confucius in their religious beliefs. Confucius was a great teacher who tried to

A Chinese man pauses to smoke his pipe before the Temple of Confucius in Peking. Notice the pagoda style of architecture and the tile roof. Many temples were built by the Chinese to honor Kung, the teacher.

Ewing Galloway

find the right way of life and to persuade people to follow it.

The Chinese name of Confucius was Kung. Kung was born in 551 B.C. He was just a few years older than Gautama Buddha. When Kung was three years old, his father, who was a soldier, died. His mother saw that he received a good education.

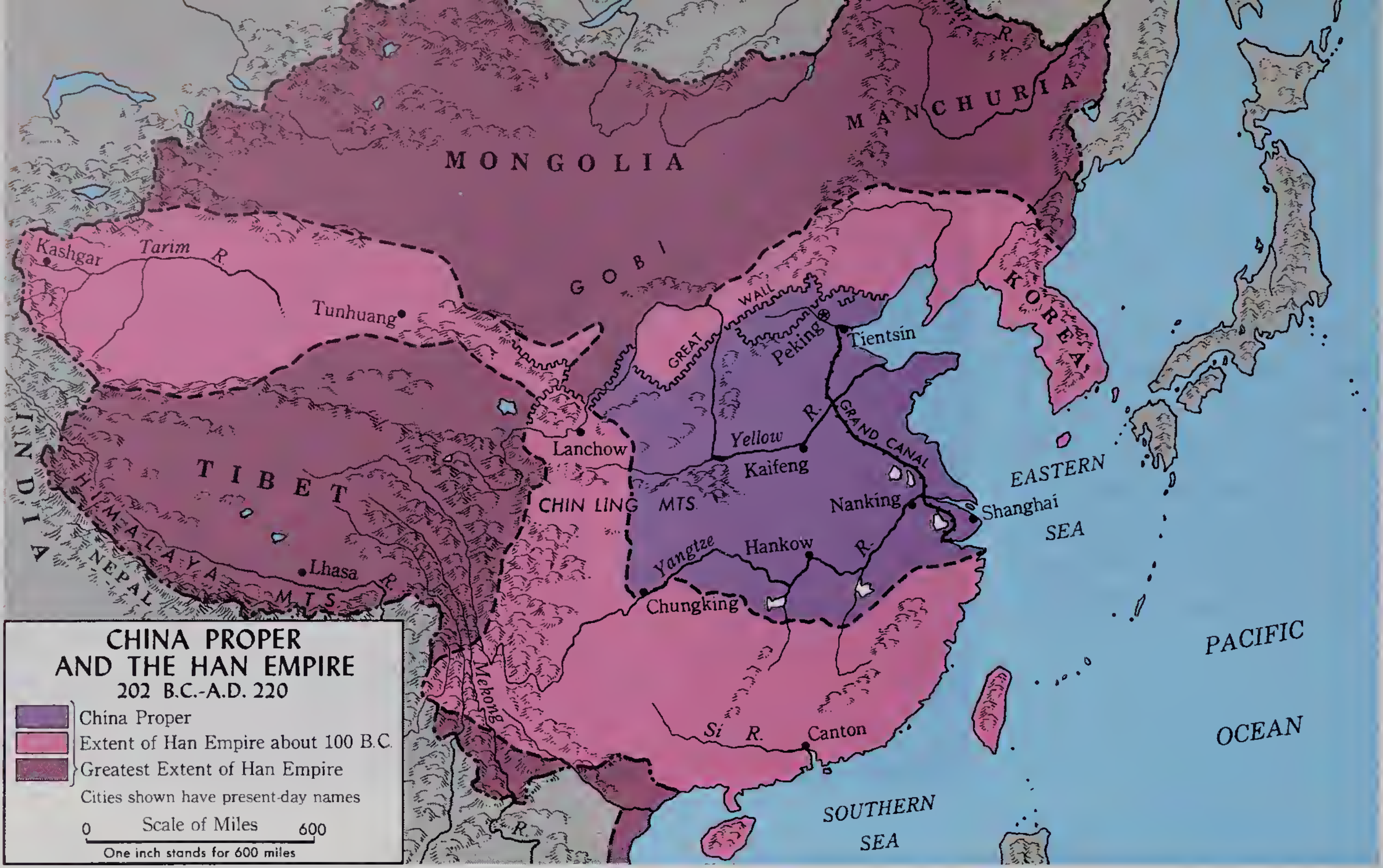
Kung thought that good government was very important. He gave much thought to this and to the ways in which people should live together. He believed that the old ways were the good ways.

Kung traveled over China collecting the sayings and rules of living as stated by wise men of former times. More than 3000 young men became his followers and helped him. Kung added sayings of his own to his collection. One of his sayings was, "What you do not like done to yourself, do not unto others." How does this differ from the Golden Rule? The Chinese accepted Kung's teachings and called him "Kung the Master." Europeans called him by the Latin name of Confucius. They also respected his wisdom.

Respect for one's parents and grandparents has always been important to the Chinese. Confucius taught that respect for parents meant obeying them during their lifetime, burying them with proper ceremonies at their death, and living just as they had lived. The Chinese came to believe that it was wrong not to follow their parents' ways of life. This belief, practiced for hundreds of years, led to what is known as ancestor worship. It kept China from becoming a progressive country, because the Chinese were not interested in new ideas.

After the death of Confucius the Chinese emperor ordered that his teachings should be the foundation of the way of life in China. Unlike Buddha, Confucius was never regarded as a god. But the worship of ancestors became an important part of the teachings of Confucius.

Many Chinese who were not Confucians worshiped Buddha. The Buddhists lived in western China, near Tibet, and in the south, near Vietnam. Some Chinese, taught by missionaries, adopted the Christian faith.



This map shows China under the Han dynasty, about 100 A.D. Find and trace the route of the Great Wall. Why was it built? What river valley in China was a center of early civilization?

The words of Confucius were the cornerstone of Chinese life until China came under Communist rule. The Communists now control the schools and decide what will be taught. They emphasize science and engineering since China needs men trained in these fields.

CHINA'S GOVERNMENTS

China has been ruled by many governments throughout its long history. But the ways of life of the Chinese people continued much the same under all rulers.

China as an empire

Historians often divide China's past into periods or *dynasties*. During each dynasty, China was ruled by emperors of the same family. The first dynasty was established more than one thousand years before Christ and lasted for nearly nine hundred years. China at that time was made up of many small dukedoms and kingdoms.

In 221 B.C. one of the dukes defeated the others and overthrew the government. He established a new dynasty and called himself the First Emperor. He unified China and built the Great Wall to keep the country safe from attack by nomads from the north. Other emperors, who came later, extended the wall. Under strong rulers peace was kept in China. Under weak rulers war often came to the country.

Just before 1900 the Japanese attacked China and won an easy victory. The Japanese had a modern army. But the Chinese used old methods of fighting and even brought dragons made of cloth and paper to the battlefield to frighten the enemy. Changes in China came about very rapidly after this.

China as a republic

In 1912 Chinese revolutionists, who called themselves Nationalists, overthrew the government. Under the leadership of Sun Yat-sen they established a republic with its capital at Nanking. The new republic faced difficulties because the Chinese had no training in self-government. Nor were all the people ready to support the republic.

Sun Yat-sen was elected president, but he soon gave up his position to the leader of the army because soldiers were needed to keep order. The new president was not loyal to the republic and tried to set himself up as emperor. After he died in 1916, there was no leader strong enough to hold the country together. Military leaders from various parts of China, called *war lords,* organized their own armies and collected taxes to support them. The war lords fought each other for power. Sun Yat-sen tried to unite the Chinese people. In an effort to restore order he accepted money, arms, and Communist advisers from the Soviet Union.

When Sun died in 1925, Chiang Kai-shek became the leader of the Nationalists. Chiang's armies fought the war lords and soon took over most of China. The Communists helped him at first. But Chiang broke with the Communists. With his armies he drove many from the country.

In 1928 Chiang and his armies captured the ancient city of Peking, the former capital of China. Chiang then set about making China a democracy.

War and the Communists

But Japan had other plans. In 1921 Japanese armies invaded Manchuria, a province of China. The Japanese captured city after city along the coast. The fighting continued for many years.

After World War II began, the Japanese armies threatened Nanking. So the Chinese government, headed by Chiang Kai-shek, left Nanking, moved far up the Yangtze River and made Chungking the new capital. Chiang fought on the side of the Allies in World War II against Japan. But his armies also had to fight the Communists, many of whom had established themselves in a northern province.

The Allies sent supplies to Chungking by air because Japan held the seaports. Supplies were also carried to Chungking by truck over the Burma Road. This road, which crossed many high mountains, deep valleys and canyons and jungles, was one of the most dangerous roads in the world, but the trucks used it successfully. Following World War II, seaports became the entrances to China again.

Much of the Great Wall of China is still standing. Notice how crooked the wall is.

Harry Drucker from Cushing

Burton Holmes from Ewing Galloway

This farmer uses a water buffalo to help him till the flooded soil of his rice paddy.

Communists and Nationalists

After World War II, the fighting continued between the Communists and the Nationalists. The Communists made steady gains. In 1949 they took over the whole area of China. General Chiang Kai-shek, his armies, and the Nationalist government then withdrew to Formosa. Formosa, also called Taiwan, is an island off the coast of China. Chiang's government-in-exile established its capital at the city of Taipei, on Formosa.

The Communists set up a government, which they call the People's Republic of China. The capital is Peking. This government has received much help and advice from the Communist government of the Soviet Union. The United States believes the Nationalists are the rightful rulers of China.

LIVING IN CHINA TODAY

Find the Yangtze River on the map, page 305. South of this river is South China, a semitropical land. In the far south the country is tropical.

North of the Yangtze, and continuing to Manchuria, is North China. Summers there are shorter than in the south. Winters are cold. Wheat replaces rice as a staple food, except in the region of the Yangtze Valley.

South China, a rice land

Lush vegetation, warm monsoon rains, tea bushes, and orange trees show that South China is a tropical land. Crops grow and mature even in winter in South China.

Two crops of rice may be grown each year. Crops planted twice a year make each acre as productive as two acres of land are in colder North China.

Near the Yangtze River, which flows through the northern part of South China, the warm weather does not last long enough for two crops of rice to grow and ripen. But the farmers can grow a crop of vegetables in the field after the rice has been harvested. The second crop adds greatly to the food supply.

The houses in the villages of South China are built of *bamboo*. Bamboo is a kind of canelike grass. Some kinds of bamboo grow only a few feet tall, but others reach a height of 120 feet and have stalks almost a foot thick.

The Chinese make use of bamboo in many ways. From it they make houses, furniture, toys, mats, canes, and even bridges. Because bamboo stems are hollow they are often used for water pipes and drain pipes. The young shoots of some kinds of bamboo are cooked and eaten as a vegetable. The plant is used in many Chinese dishes.

The Grand Canal, which connects North and South China, is a busy water highway. Junks like those shown in the picture carry cargoes up and down its seven-hundred-mile length.

Eastfoto

South China has many canals. The canals carry water to the thirsty rice fields. They also serve as highways on which boats, loaded with goods, move up and down. Land travel in rural regions is on paths rather than roads. On these paths men push wheelbarrows filled with produce or carry loads hung from yokes across their shoulders.

The Grand Canal connects South and North China (see the map, page 328). It is an inland water route between Shanghai, in the south, and Tientsin, in the north. This canal was begun about 500 B.C.

North China, a wheat land

North China receives less rain than the south does, its summers are shorter, and its winters colder. Snow lies on the ground at Peking in winter, and the people enjoy ice skating.

The northern limit at which rice can be grown lies about halfway between the Yangtze and the Hwang Ho. On the North China Plain, through which the Hwang Ho flows, are great wheat lands. In the interior, where the rainfall is less, grains like the sorghums and millets replace wheat because they require less moisture.

The villagers of the north build their homes and bridges of brick or stone or of wood if they can get it. But wood is scarce in North China because the Chinese in early times chopped down the forests and did not replant trees.

WAYS OF LIVING IN THE FAR EAST

The streets of Hong Kong are narrow and crowded. Many have broad stairs like this. But men with carts and porters carrying foods are able to make their way through the island's business districts.

Photos from Ewing Krainin

This is a busy canal in a tropical region of Asia. All kinds of boats can be seen along the rivers and canals of Southeast Asia and of China. Many persons spend most of their lives on these houseboats, rarely stepping upon land.

Ewing Krainin

Pagodas, or temples with many stories, have been built as memorials in the Far East for hundreds of years. This pagoda is modern.

CNS Photo from Guillumette

Rice paddies are flooded in the valley, shown above, in South China. Rice needs much water. It is the main food and crop in this area.

This view of Canton on the right shows some of the houseboats on which many Chinese live during their whole lifetime. The modern office building behind the boats is the Bank of China. Notice the bright colors used on the houseboats.

Paul Hufner from Shostal

Money crops in China

In South China several money crops are produced. Tea bushes are grown on the hillsides where rice cannot be raised. Mulberry trees, on the leaves of which silkworms feed, are also grown. The silkworm spins a cocoon around itself which, when unwound, yields strands of silk. Tobacco is also raised as a money crop. In hilly areas chestnut trees are grown both for their nuts and for firewood. Citrus fruits are produced and sold. In the southwest, near Vietnam, poppies are raised. From poppy juice, *opiates* are made. Opiates are used in medicines to deaden pain.

The summers of North China are just long enough to grow cotton. In the past China has been one of the four leading cotton countries of the world. The Chinese wear much cotton clothing. Cotton is also used as padding in their garments to keep out the cold of the northern winter.

North China is also a fine soybean country. Soybeans have many uses. The soybean is so nutritious that it helps to take the place of meat in the Chinese diet. An edible oil is extracted from the bean. A cheese substitute is made from soybeans. Some years ago soybeans from China were introduced into the United States. They are used here chiefly as cattle feed and in the making of plastics. But in North China, soybeans are food for humans.

These girls in a silk factory sort cocoons into three grades—golden, yellow, and white.

Ewing Galloway

Collective farms and industry

For hundreds of years China was a nation of small farms. After the Communists won the war, the Communist government took control of the land. Like the Russians they formed large farms, called collectives, by putting many small farms together. There are now many such collectives in China.

The Chinese farmers live in barracks on the collectives. They work long hours and receive little in return.

The Communist government has started a series of five-year plans to develop industry. Many factories and power plants have been built. China now makes steel, machinery, and textiles. It has enough minerals, such as iron ore and steel, to become an industrial nation some day.

Manchuria

Manchuria was originally a grassland, like our Great Plains. These lands have now been settled, and the grasslands are planted in crops. There are forests in the mountains.

In the past the people of China Proper feared the nomads of Manchuria and of Mongolia, who often invaded and raided China. The Great Wall of China was constructed to keep out the Manchurians and Mongolians. The Great Wall is so broad that a roadway, thirteen feet wide, was built on the top of it. In olden times it was used by soldiers and for carts carrying supplies.

This picture of the Bund in Shanghai would look like a street in any large city in the United States, except for the jinrikishas. Shanghai is China's largest seaport and the fourth largest city in the world.

Ewing Galloway

In 1910 Manchuria had only 14,000,000 people. Then the Chinese began moving from the crowded areas of China into Manchuria. Today Manchuria contains more than 50,000,000 people, and its population is Chinese in its ways of living. Wheat, vegetables, and soybeans are its chief crops.

Mukden, the most important city of Manchuria, is a new industrial center. Iron ore is mined near by, and the thickest seams of coal known in the world are mined close to the city. Large iron-and-steel plants and factories operate. Mukden now has 2,411,000 inhabitants.

Life in Chinese cities

China contains about thirty cities of considerable size, but only a few of them have a million or more people each. This is a small number for China's total population.

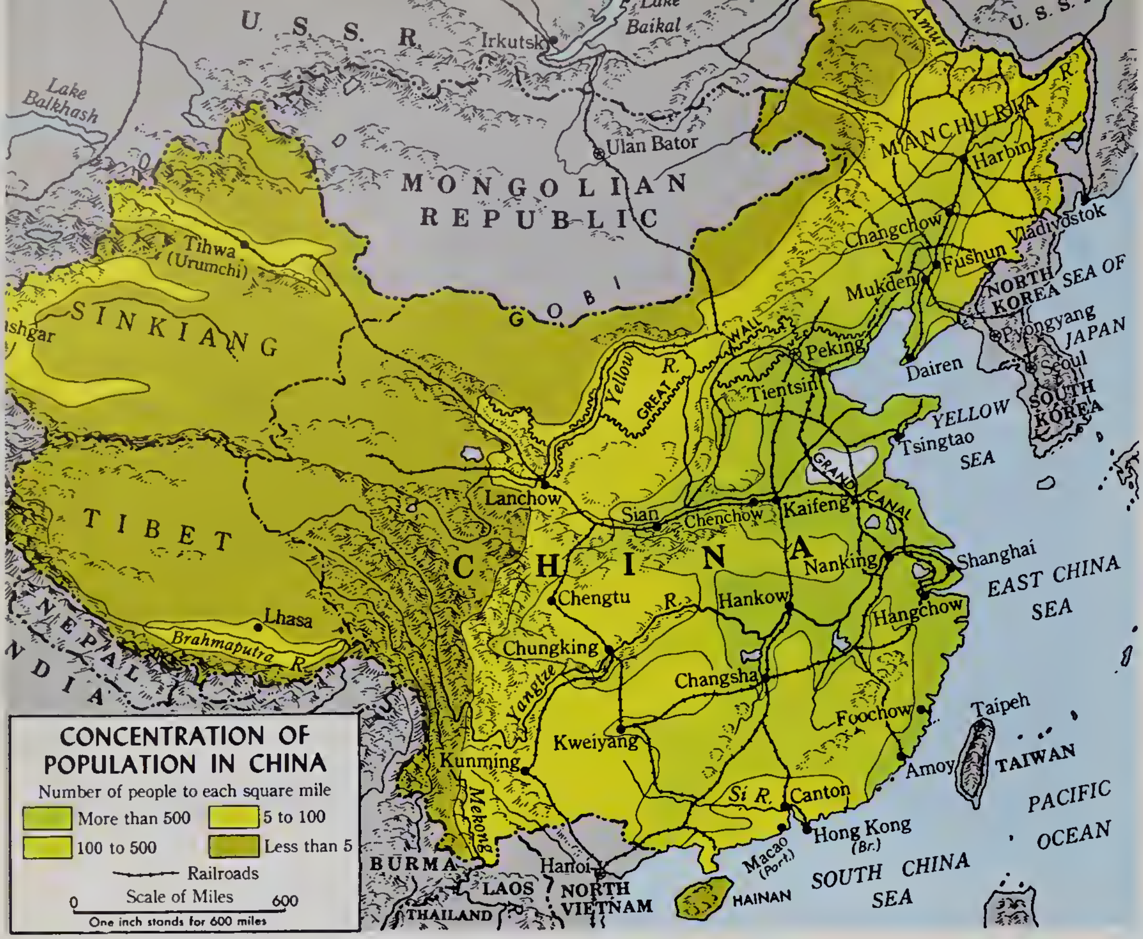
Shanghai, which has nearly 7,000,000 people, is located near the mouth of the Yangtze River. It carries on the trade of the entire Yangtze Valley. Thousands of ships, called junks, engage in this trade. Smaller boats sail on the Grand Canal, on other canals, and on the river. A Shanghai street called the Bund is one of the famous streets of the Far East.

Nanking, not far from Shanghai, can also be reached by ocean ships. Hankow, farther inland, is a large industrial center, with iron-and-steel mills. Chungking, inland on the Yangtze, is the center of a rich farming basin. Junks and smaller river boats reach Chungking only after passing dangerous rapids.

Canton is in tropical South China, on a branch of the Si Kiang. The Si Kiang is the principal river of the south. Canton has about 1,840,000 inhabitants.

Tientsin is the seaport of the plain of North China and of Peking. Although not near the mouth of the Hwang Ho, it is connected with the river by way of the Grand Canal. Tientsin is also connected with the whole valley by roads and railroads.

Peking, the capital, has about 4,010,000 people. It is a city of beautiful palaces,



China has the greatest population of any country in the world. What parts of China are densest in population? Least dense? What factors do you think influence both? To answer this, compare this map with the map on page 305. Where are most railroads found? Can you tell why?

parks, pagodas, and government buildings. The city lies on the plain, but hills and deserts are not far to the west. Camels are seen occasionally on the streets of this capital city.

The island of Formosa

East of the strait which connects the South China Sea and the East China Sea is the island of Formosa. The island, which is about half as large as West Virginia, has many mountains. One peak of Formosa rises to more than 13,000 feet above the sea. Most of its 10,000,000 inhabitants live on the plain on the western side of the island. Taipei, the chief city, is the capital of Formosa.

HONG KONG

Just off the coast of southern China is the island of Hong Kong. Hong Kong is a British colony. The colony, which also includes a small district on the mainland of China, is an important trade center. Tea, silk, and other Chinese products from Canton, Shanghai, and other seaports in China are shipped to Hong Kong. These products are then shipped from Hong Kong to European ports in British vessels.

In recent years Hong Kong has become an important manufacturing center. Its factories produce steel, textiles, and furniture.

Hong Kong is also a haven for refugees. Many thousands go there to escape the Communist rule of the Chinese mainland.

Hong Kong, like Colombo and Singapore, is a port of call for ships in the Far East. Victoria is the capital of the colony.

Do you know—

1. How large is China in area? How many people live there?
2. How is China governed today?
3. How are South China and North China different?
4. Why is Formosa important?

5. LIVING IN JAPAN AND KOREA

The islands of Japan stretch between Formosa and the Soviet island of Sakhalin. Across the Sea of Japan is Korea, a peninsula of Asia.

Japan covers an area almost as large as California, yet it has more than half as many people as the United States. The inhabitants of Japan make their living in farming, in manufacturing, in trade, and in fishing.

JAPAN'S PAST

The ancestors of the Japanese came from several areas of the Far East. The earliest people known to have lived in these islands were the Ainus. As settlers came from the mainland of Asia and from islands to the south, the Ainus were pushed northward. Today these people are found only on the northern island of Hokkaido. The Japanese are a mixture of Mongolians, Malays, and the ancient Ainus.

The early Japanese people were nature worshipers. They believed in gods of the forest, the sea, and the sky. They believed that the Sun Goddess founded the islands of Japan and that one of her descendants became the first emperor. Out of this story, or *legend,* grew the idea that the emperor was sacred and could do no wrong. The religion based on this legend was called *Shinto,* meaning the "way of the gods."

History tells us that Buddhist missionaries came from China in 552 A.D. They brought with them a written language and the civilized ways of living of China as well as the teachings of Buddha. Many Japanese became Buddhists, but they clung to Shinto, too.

Early contacts with the West

Europeans learned about Japan, or Cipango as it was then called, from Marco Polo. But Europeans did not find their way

Consulate General of Japan

Near the capital city of Tokyo is snow-covered Mount Fujiyama, one of Japan's most beautiful sights. This mountain is sacred to many Japanese. Once extremely active, it is now an extinct volcano.

to Japan for many years after Marco's time. The first Europeans to reach Japan were Portuguese sailors. Other European traders and Christian missionaries followed.

As Europeans arrived in increasing numbers, Japan's rulers feared that the foreigners might take over the country. They drove the traders and missionaries out of Japan and forbade the Japanese to leave Japan. In this way Japan closed its doors and shut out the rest of the world. During this period only a single Dutch ship was allowed to land at Nagasaki each year. Until the 1850's Japan was like a European nation in the Middle Ages. Feudal lords, called *shoguns,* lived in castles with high stone walls and ruled great estates. The shoguns had their own armies.

The open door

The United States was the first nation to persuade Japan to open its seaports to trade. In 1853 Commodore Perry, with four United States warships, visited Japan and asked for an "open door" in trade. The Japanese refused. But the next year Perry returned with more ships and more guns. This time the Japanese agreed to allow United States ships to trade in two Japanese ports. Within a few years, other Japanese seaports were opened to trade with other nations. The "closed door" of Japan had swung open.

Rapid changes

The Japanese soon realized that they were a backward nation. They sent men to the United States and to Europe to learn about Western ways of doing business and of fighting wars. Japanese students entered universities in western Europe and in the United States. Schools were established in Japan. A fine railroad and highway system was developed. In less than fifty years Japan changed more than it had changed in many centuries.

In 1889 Japan's first constitution was adopted. Under the constitution the emperor was the head of state and regarded as all-powerful. He was supposed to be descended from the first emperor and therefore believed to be divine.

Japan after 1900

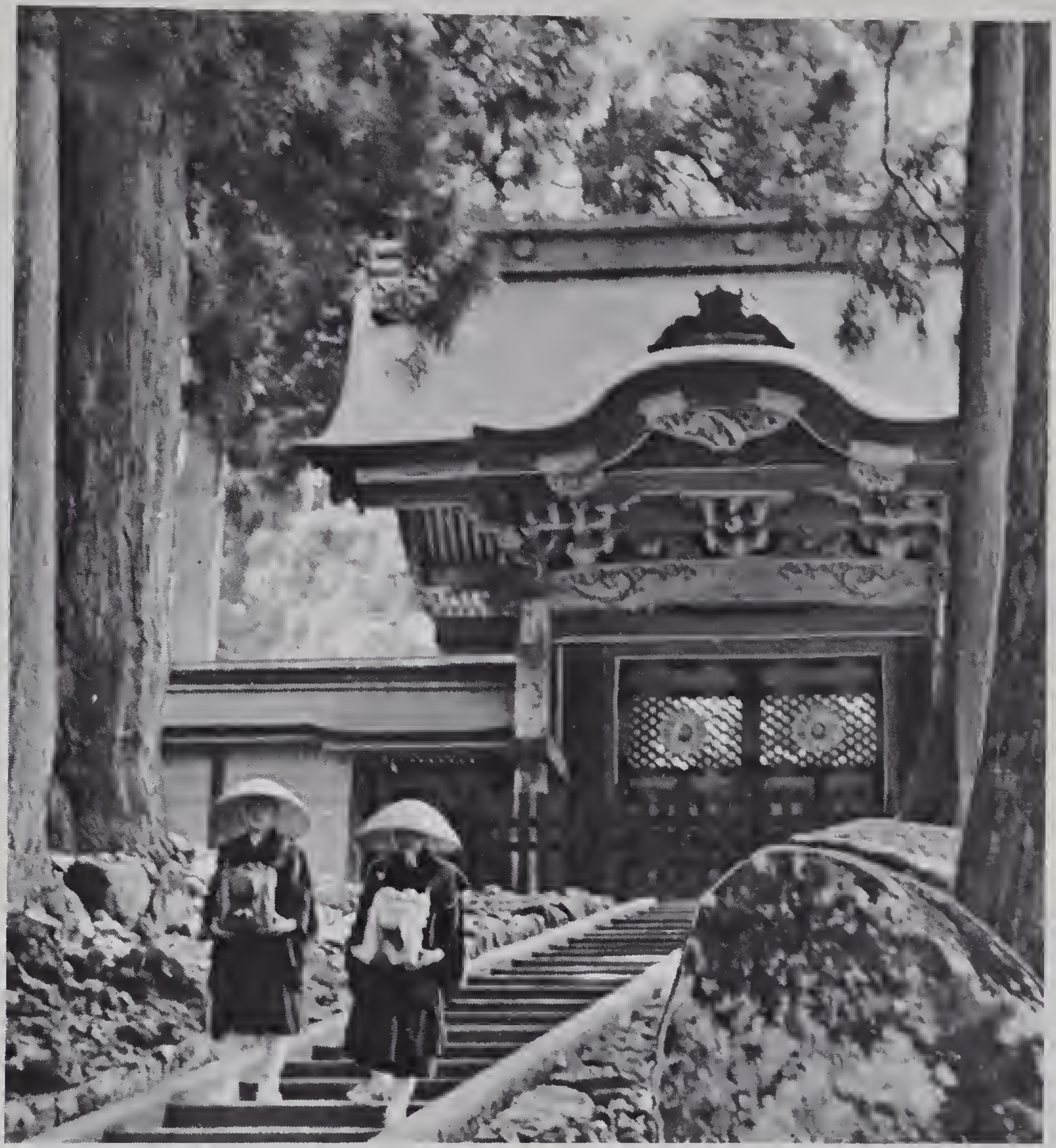
In 1894 Japan attacked China and took the island of Formosa. In 1904 Japan attacked the Russians and defeated them. As a result, Japan obtained the right to trade in Manchuria, an area then controlled by Russia. In 1910 Japan conquered Korea. After World War I, Japan was given control of all the Pacific islands that had belonged to Germany. In 1937 Japanese armies invaded Manchuria.

In World War II, the Japanese conquered parts of the East Indies, the Philippine Islands, much of China, Singapore, and Malaya, parts of Burma, and some islands belonging to India. They looked upon themselves as the masters of the Far East.

In 1945, as we know, Japan went down to defeat. The United States army occupied Japan. The United States then helped Japan to form a new government and to learn the ways of democracy. The emperor remained as head of the government, but he no longer had a position of complete power.

Japanese ways of living

Japanese homes are very different from ours. The houses are built of wood or of bamboo with sliding screens which separate the two or three rooms from each other. Rooms can thus be made larger or smaller as the family wishes. In poorer homes oiled paper is used in place of glass in windows.



These men are Buddhist priests who are walking down the long stairway leading from a Japanese temple. Buddhism is a religion followed by many Japanese today. Compare the architecture of this temple with that of other buildings in the Far East.

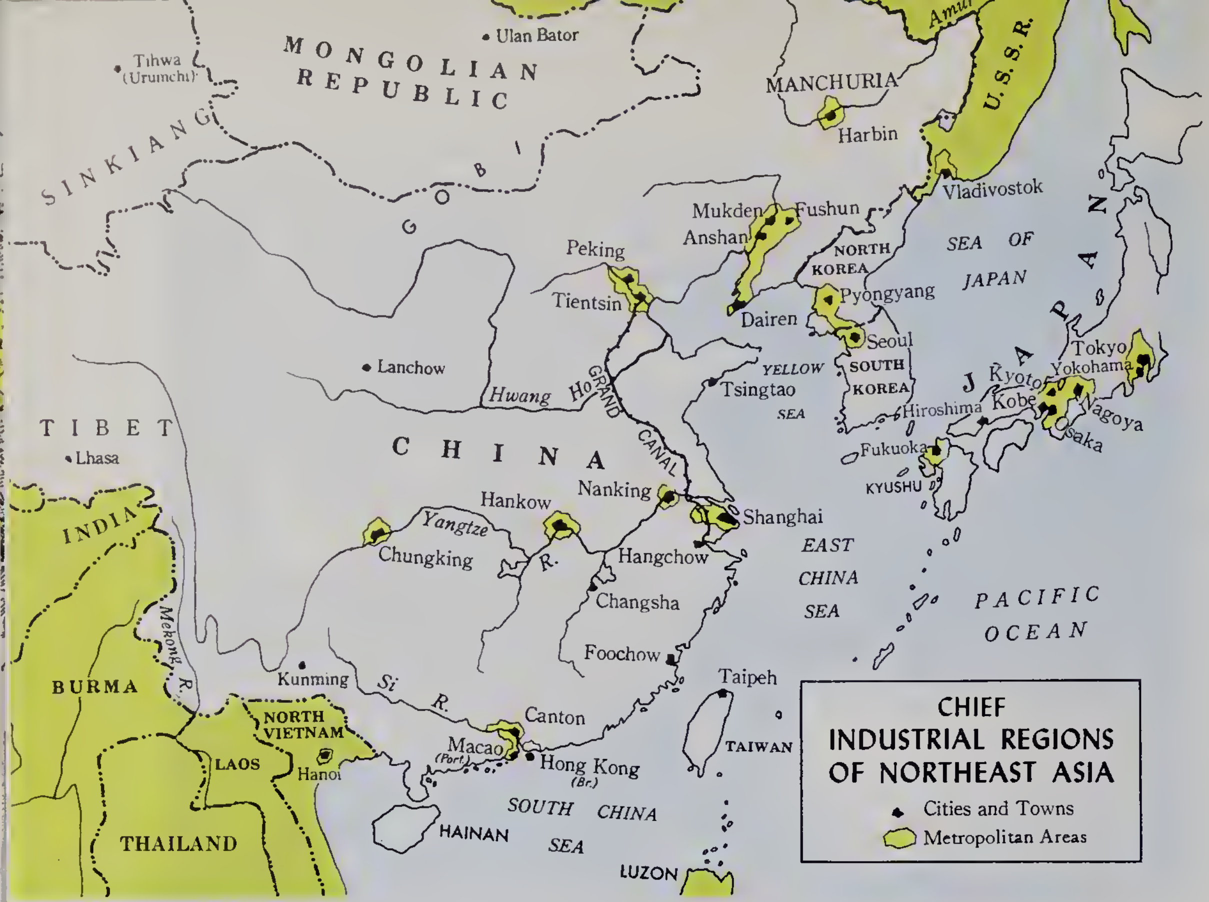
Japanese Tourist Association

The rooms are kept very clean, and bamboo mats cover the carefully scrubbed floors. In some cities, the police inspect the houses to check on cleanliness. When a Japanese enters a house, he puts on light sandals or slippers. The Japanese do not sit on chairs. Instead, they sit cross-legged on the mats placed on the floor. Meals are served on tables only about one foot high. The Japanese sleep on the floor on quilts spread out on the mats.

The Japanese pride themselves on their beautiful flower gardens. Classes in flower arrangement are held in Japanese schools, and every girl must learn this art.

When Japan decided to modernize itself, it did so rapidly. Fine highways were built. Dams constructed on the many short mountain streams produce electricity. The electricity is sent by wire to the plains near by. Before World War II, a larger percentage of farms in Japan had electricity than did the farms of the United States.

All children in Japan are required to attend school. Today nine out of ten persons in the nation can read and write. The fact that the Japanese are educated made it easier for the United States to help them learn the ways of democracy.



Name the cities shown on this map which have an industrial area near them. What country in this part of the Far East is most heavily industrialized? Study the pictures on the opposite page before you answer this question.

THE LAND OF JAPAN

There are four main Japanese islands and hundreds of smaller islands. Find them on the map on page 305. Honshu, the largest island, is the most centrally located and contains nearly all of the chief cities. Tokyo, the capital, is on Honshu. Hokkaido, the next largest island, is farther north and has few large cities because of its cold climate.

Volcanoes and earthquakes

The Japanese islands are the tops of a chain of mountains which rise from the floor of the Pacific Ocean. The mountains are five or six miles above the bottom of the ocean, but only the higher parts project above sea level to make the many islands.

The mountain range which forms Japan is still growing. As a result, Japan has many earthquakes each year. Most of them are very light, but some have done a great deal of damage. In 1923 an earthquake killed 143,000 persons and leveled much of Tokyo.

Japan has about 200 volcanoes. Fifty-two of these have erupted and thrown out lava and ashes since records have been kept. Fujiyama, a high, snow-capped volcano west of Tokyo, is inactive at present. It has not erupted for about 300 years. The mountain is considered sacred by the Japanese. Every summer thousands of pilgrims climb one of the five paths to the top.

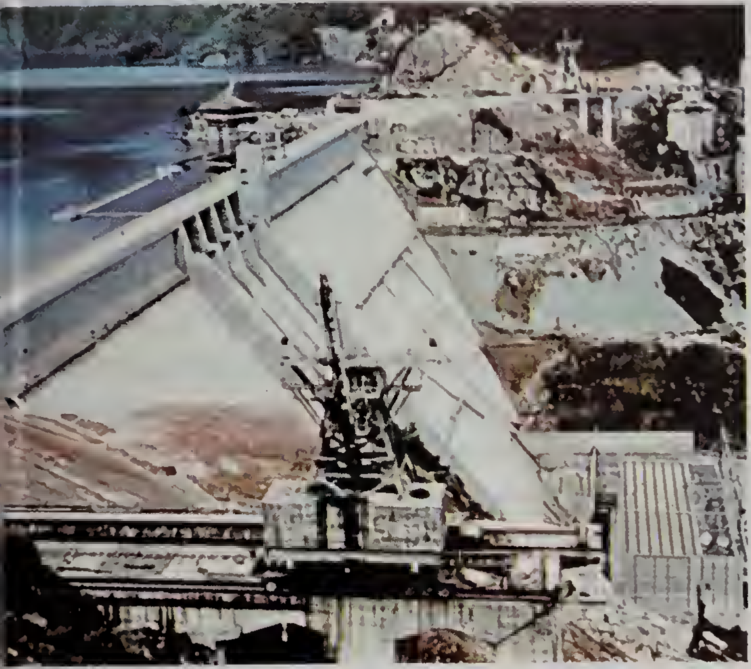
Mountains and plains

Japan is so mountainous a country that only one sixth of the country is level or gently sloping land. The plains are small, consisting of narrow river valleys and of flat deltas near the mouths of the rivers.

Most of the Japanese people live on the plains. They also live within a few miles of the sea, since the plains are near the coast.

SOME INDUSTRIES IN JAPAN

This Japanese worker is busy at a weaving machine. Today Japan is the world's largest exporter of both silk and cotton fabrics.



The dam and power plant shown above supply large amounts of electricity to Japan. All of the parts used in constructing the plant were made in Japan.

Photos from Ministry of Foreign Affairs, Japan

Shipbuilding in Japan is an important industry. In addition to the vessels built for home use, Japan builds ships for other nations. The ship shown on the right is almost completed.

Farming in Japan

Japan was a nation of farmers and fishermen when Perry visited the land. Today, a little more than 100 years later, less than half the people engage in farming. Instead, many work in manufacturing.

Because Japan does not have enough farm land to support its people, space is saved in every way possible. Houses are built on dikes or on waste land in order to save the more valuable land for rice fields. Some farm villages are built along the base of hills so that all flat land can be used to grow rice or other food crops.

Japan has a warmer climate than China. The reason is that a warm ocean current which comes from the Philippines passes the coast of Japan. Thus rice can be grown much farther north in Japan than in China. It is grown northward almost to the northern tip of Honshu. The farmers of Hokkaido, however, depend on wheat, barley, and other grains. Two crops of rice a year can be grown on Kyushu.

Tea bushes and mulberry trees, on which silkworms feed, grow well on the hills. Tea and silk, therefore, are the important products of the hilly lands. The Japanese people, like the Chinese, drink much tea. Silk is one of the leading exports of the nation.

The ways of producing silk in Japan have been improved in recent years. The largest and best cocoons are saved, and the worms in them are allowed to develop into moths. These moths are kept at hatcheries, and their eggs are sold to farmers. In this way the quality of Japanese silk improved, and Japan captured the world silk market from China.

Japanese men and women like to wear silk. The businessman in Japan, who wears a Western suit during the day, often changes to his Japanese silk robes when he is at home. Poorer persons in Japan, as in China, wear cotton clothing.

Workers in Japanese rice paddies wear large hats to shield their faces from the sun as they weed the fields of young rice. The rice fields are covered by water which is brought by irrigation.

Japanese Airlines

A fishing nation

The waters off the shores of Japan teem with fish. Japan is the world's leading fishing nation, and fish is a principal food of the people. In all, nearly 2,000,000 Japanese gain their living by fishing. Every island has fishing villages, but the richest fishing grounds are those along the Inland Sea, which is enclosed by three large southern islands.

Japanese fishermen range through much of the North Pacific Ocean. They fish in Alaskan waters, except for those areas that the United States has reserved for its own use. They also fish around the islands of the mid-Pacific. Japan owns whaling vessels, which sail to the Antarctic on whale hunts.

Seaweed is another product of Japanese coastal fisheries. The seaweed is gathered near the shore and dried on specially built racks on the beaches. The Japanese eat seaweed much as we eat spinach.

Pearls are an additional source of income for the Japanese. A pearl is formed when a grain of sand or other hard substance enters the shell of an oyster. To protect itself, the oyster covers the irritated part with layers of tiny mineral crystals. Pearls are much valued gems which bring a high price when the shape and color are good.

Some years ago the Japanese discovered that oysters could be forced to produce pearls. They did this by inserting small pieces of finely ground clamshells inside the shells of young oysters. The oysters were then placed in oyster beds. As each oyster grew, a pearl formed around the piece of clamshell. Such pearls are known as *cultured pearls.* The Japanese made a big business of producing cultured pearls. These pearls are very beautiful but are not so highly valued as natural pearls. Japan ships many cultured pearls to the United States.

These Japanese fishermen are pulling tuna into their boat. Notice the size of the fish.

Manufacturing and trade

Nearly one third of the Japanese people now earn a living in manufacturing and trade. The development of modern manufacturing has taken place in Japan since about 1900. Japan is the most industrialized of the Far Eastern nations.

Cotton is imported from the United States, China, and India for use in the textile factories. Some coal and iron ore are mined at home, but much is imported from Manchuria. Large quantities of scrap iron, or used iron and steel, are imported from the United States. The scrap iron is melted and

Tokyo is the largest city in the world today. This brightly lighted section of Tokyo is called the Ginza. The Japanese are proud of the Ginza with its neon lights, its large stores, many theaters and restaurants.

Consulate General of Japan

used in the steel mills. Oil is imported from the East Indies. Japan pays for these products with raw silk, with manufactured articles, with pearls, and by providing shipping services on the Pacific. On any given day about half the ships in the harbors of Seattle, Portland, or San Francisco are from Japanese ports.

Cities of Japan

The chief manufacturing cities of Japan are Tokyo, Yokohama, Nagoya, Osaka, and Kobe. Find these on the map, page 340. Tokyo is the capital and also a leading manufacturing city. Osaka, which is a little larger than Los Angeles, is the leading cotton-textile center. Ships are built in many seaports, but Yokohama and Kobe are the most important shipbuilding cities.

Nagasaki, on the island of Kyushu, is the chief seaport for trade with Korea and China. A railroad tunnel underneath the sea connects Kyushu and Honshu and gives Nagasaki good transportation to the manufacturing cities of Honshu.

Tokyo is on the Kwanto Plain, at the head of Tokyo Bay. Tokyo is growing very rapidly. It is the center of the largest metropolitan area in the world. It is also the center of the finest railroad system in Asia. But large, modern ships cannot sail up the shallow bay to Tokyo. Thus Yokohama, eighteen miles to the south, is the seaport for Tokyo.

Tokyo is a city of contrasts. The business district, completely rebuilt since the earthquake of 1923, is like that of a Western city. People on the streets and in the stores and offices are usually in Western dress. But the houses in the residence districts are Japanese, and most of the people wear Oriental robes at home. The palace of the emperor, the wide park around it, the gardens in the park, the temples, temple gates, and tea houses, all remind us that Japan is an Oriental nation. Both the Westerner and the Oriental feel at home in Tokyo.

LIVING IN KOREA

Korea includes the peninsula which extends outward some 500 miles from Asia and islands to the northeast of the peninsula (see the map, page 305). One fifth as many people live in Korea as in the United States. A winding northern border is marked by two rivers on the east and west and a mountain range in the center.

Korea's past

The Koreans are a people much like the Chinese. They have, however, their own language and customs. In ancient times they were ruled by the Chinese. About 1900 Russia's long arm stretched out to take Korea. But Japan, who also wanted Korea, declared war on Russia. As we know, Japan won the war. Japan then gained the upper hand in Korea. A few years later Japan moved in and made Korea a province of Japan. But the Japanese were not able to change the ways of the Koreans.

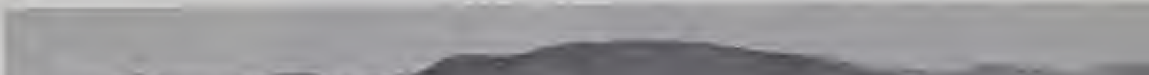
After Japan's defeat in World War II, Korea was divided into two areas. Soldiers from the Soviet Union occupied North Korea, and soldiers from the United States occupied South Korea. The boundary line was the parallel of 38° north latitude.

In 1948 the South Koreans established the Republic of Korea with Seoul as its capital. The next year the United States turned the government over to the South Koreans and withdrew its troops.

The North Koreans, under Communist direction, established a government called the People's Democratic Republic of Korea. The capital of North Korea is Pyongyang. The Russians also withdrew their armies, but they left behind well-trained Korean armies and a government under the control of the Communists.

In June, 1950, the North Korean army invaded South Korea. The United Nations, whose purpose is to preserve peace in the world, demanded that the North Koreans

United Nations Photo



This small Korean town is on the Han River. Some houses have straw roofs to shed the rain. Others have tile roofs. The tile roofs cost more money than do roofs of straw.

withdraw. The United States and fifteen other nations sent troops to Korea. In the fall of 1950 Chinese Communist troops entered the war on the side of North Korea.

The fighting in Korea was long and bloody. The war lasted from 1950 to 1953, when a truce, or agreement to stop fighting, was made. The truce left Korea divided. The boundary is near the parallel of 38°, but not on it, as it was in 1945.

South Korea

South Korea is mainly a farming country. As in other countries of southern Asia rice is the staple food crop. Cotton is grown for home manufacture and for export. Farming is done by hand, for the Koreans have almost no work animals and no modern farm machinery. The people are not as efficient farmers as the Chinese and Japanese, and the amount of food raised per acre is lower than in China and Japan.

South Korea is an independent republic which has allied itself with the Western world. Seoul, the capital, has more than 2,000,000 inhabitants. In 1953 the United States and South Korea signed a treaty in which each promised to help the other in case of war.

A Korean family work together to harvest their crops. Rice and other grains such as barley and wheat are the chief crops.

United Nations Photo

North Korea

North Korea has industries as well as farms, and its northern mountains are covered with fine forests. The summers are not long enough or warm enough for the growing of rice. Wheat and other grains are the staple foods. In this way, the region is like near-by Manchuria. Many factories, built long ago by the Japanese, now operate in North Korea. Pyongyang, the capital, is a city of almost 300,000 inhabitants.

KOREA'S PROBLEMS

Korea's problems are concerned mainly with becoming a unified country again. Each half of this divided nation believes that the other half should join it. So long as two different systems of government prevail, there is little hope of a unified Korea.

Do you know—

1. How did Japan learn western ways?
2. What kinds of land does Japan have?
3. What are Japan's chief products? What are its most important exports?
4. Into what two parts is Korea now divided? How did this happen?

Standard Oil Co., (N.J.)

These women and children are fishing in a small pond in their village on Java, Indonesia.

6. WHAT THE EAST INDIES ARE LIKE

The islands of the East Indies lie between the continents of Asia and Australia. The largest islands, as you see from the map on page 305, are Sumatra, Java, Borneo, Celebes, and New Guinea. Sumatra is not far from Singapore and the mainland of Asia. New Guinea is close to Australia.

INDONESIA'S PAST

The Netherlands early gained control of most of the islands of the East Indies. These islands became the center of interest in Asia for the Dutch, as did India for the British. The Dutch were especially interested in Java and Sumatra. Today these two islands and tiny Bali are the most developed.

In 1602 the Dutch formed the United East India Company to engage in trade with the East Indies. The Dutch moved in, and the Netherlands governed most of the islands. But the people wished to be free.

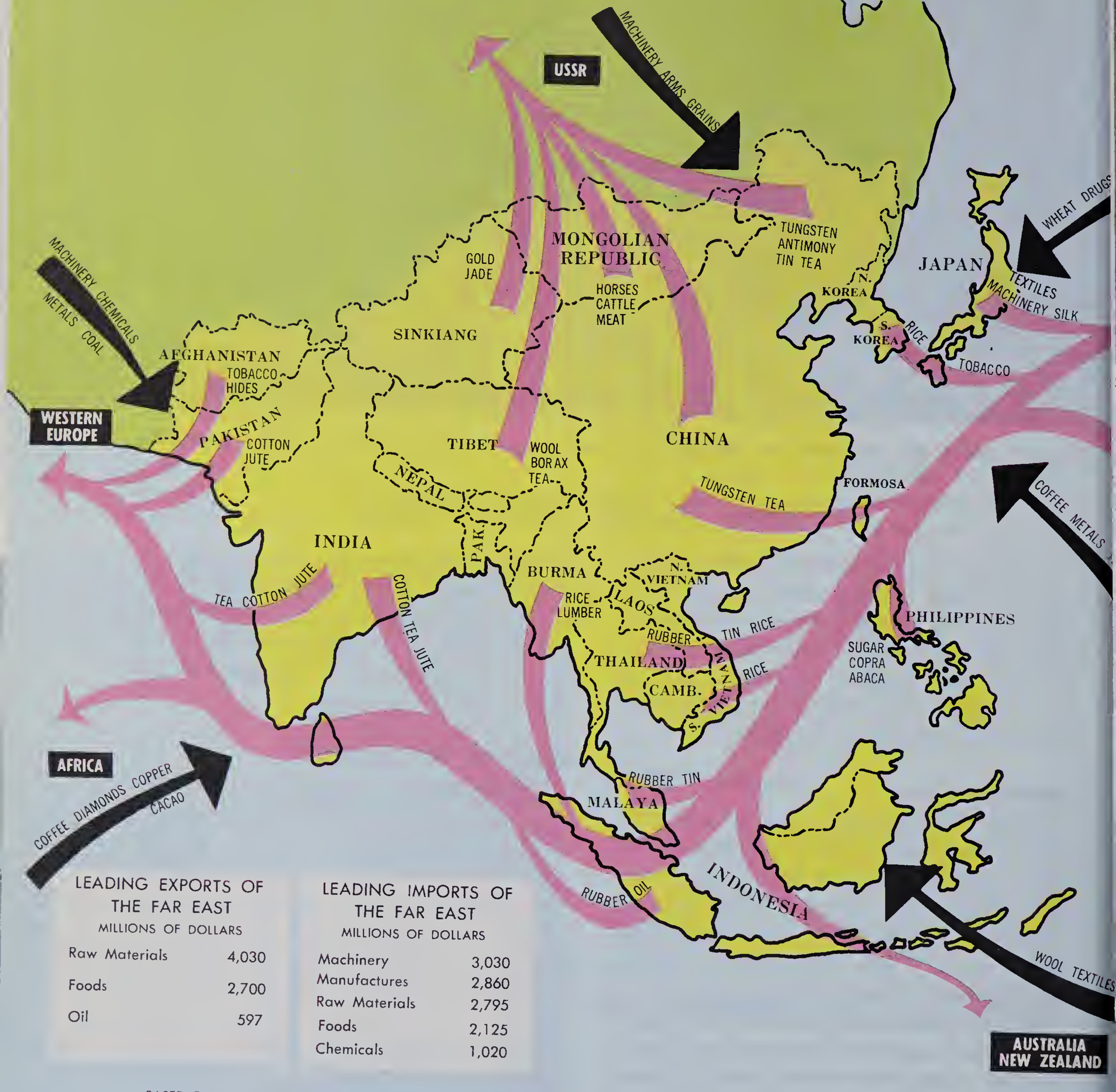
After the Japanese troops in the East Indies were beaten in World War II, the Indonesians set up a republic. The Dutch, however, did not want to lose the territory, and hard fighting broke out. The Dutch finally agreed to give independence to Indonesia. The Republic of Indonesia became self-governing in 1949–1950.

ISLANDS IN THE TROPICS

The Republic of Indonesia includes four large islands and about 3000 small ones. The total area of Indonesia is more than twice the size of Texas. Its population is about half that of the United States. Most of the people live on the large island of Java. Jakarta, which is about as large as Los Angeles, is the capital of Indonesia. It is Java's chief seaport.

Indonesia, which is crossed by the equator, is a rainy, tropical region. The monsoons bring rains all through the year because these winds blow from the seas around the many islands. Rice grows well there. It is the staple food of the inhabitants.

WORLD TRADE OF THE FAR EAST



LEADING EXPORTS OF THE FAR EAST
MILLIONS OF DOLLARS

Raw Materials	4,030
Foods	2,700
Oil	597

LEADING IMPORTS OF THE FAR EAST
MILLIONS OF DOLLARS

Machinery	3,030
Manufactures	2,860
Raw Materials	2,795
Foods	2,125
Chemicals	1,020

BASED ON RECENT GOVERNMENT FIGURES

Farmers in Indonesia go off to market with large baskets carried on poles across their shoulders. Some men carry produce to sell while others carry empty baskets to hold the products they will buy.

Standard Oil Co., (N.J.)

The people of Indonesia

Most of the inhabitants of Indonesia are of Malay stock. Historians believe that the first settlers came to the islands from the mainland of southeastern Asia about 5000 years ago. Most Indonesians have straight black hair, a light-brown skin, and are of slender build. About 2,000,000 Chinese and 80,000 Arabs live in Indonesia.

The people of Indonesia follow several different religions. Some are Buddhists. Others are Moslems, or Christians, or Hindus. Tribes in the interiors of some of the eastern islands still practice primitive religious customs.

The Dutch plantations were mainly on Java and Sumatra. Most of the Dutch traders moved to the Indies to make the islands their permanent home. They started schools, directed the government, and brought their children up in the islands. Their children and grandchildren remained there. Thus the islands were governed by Dutch officials. The Dutch gave the natives of the islands little opportunity to hold office. As a result, when the Dutch left the East Indies, there were few trained men able to lead the new nation. Indonesia has moved very slowly in self-government.

Beautiful Java

Java is the most progressive island of Indonesia, largely because the Dutch paid more attention to it than to the other islands. But the Javanese are also very industrious.

The Dutch constructed fine roads and railroads in Java. To help make this tropical island a healthful one, they built hospitals and brought doctors from the Netherlands. Mosquitoes and other disease-carrying insects were killed. The people were taught habits of cleanliness and good health.

The result was that the people of Java increased greatly in numbers. In 1816 there were 5,000,000 Javanese. Twenty-five years later the population had doubled. In another twenty-five the people numbered 20,000,000. Today there are more than 50,000,000 people on Java. Islands, such as Borneo, where little has been done to stamp out tropical diseases, are not thickly populated. This happens because so many die young.

SEATO

These people of Java are about to begin work on a crop of coconuts in order to produce copra. The production of copra, which is dried coconut meat, is one of the island's largest industries. Copra can be exported. It is valuable for the oil which it contains.

Almost any view in Java would show rice fields, corn fields, coconut palm trees, and great volcanoes. Rice, corn, and coconuts are the chief foods. Lava from the more than 100 volcanoes has brought minerals to the soil that have made it rich. The Dutch introduced tea, coffee, and rubber plantations on the island of Java.

Other islands of Indonesia

Sumatra has a population of more than 13,600,000. The Strait of Malacca lies between Sumatra and Malaya. Rubber plantations and small farms make up this part of Indonesia. Large quantities of tin are mined on two small islands east of Sumatra and shipped to a smelter in Singapore.

Most of the large island of Borneo belongs to Indonesia. Indonesia also claims New Guinea. Large areas of both islands are jungles inhabited by primitive tribes.

Part of Borneo, in which there are small oil fields, is held by Great Britain. Japan obtains some of its oil from these fields in Borneo.

Bali, a small island east of Java, has almost 2,000,000 people. The people are farmers. The island is noted for its beautiful scenery, its people, and its fine music and dancing.

In the early days of exploration Portugal took possession of some of the islands of the East Indies. The Portuguese valued them for their spices and still trade in spices with them. Australia also controls some islands.

Do you know—

1. How do the monsoon winds affect Indonesia?
2. What are the people of Indonesia like?
3. What crops are grown in Indonesia?
4. What valuable resource has been discovered in Borneo recently? Who uses this product?

7. OUR TIES WITH THE FAR EAST

The United States has always been interested in trade with the Far East and in the people of the Far East. Missionaries from the United States have gone to Asia to tell the people about Christianity and to teach them better, more healthful ways of living. The United States has sent help to the Far East during times of famine, earthquakes, floods, and destructive storms.

The Far East supplies many raw materials such as rubber, jute, teakwood, silk, tea, tin, and other products for our factories. Pepper and spices are imported from Indonesia. Trees on Java supply us with quinine, which is used in treating a disease called malaria. Camphor, another useful medicine, is obtained from large evergreen trees that grow on Formosa. Manganese, used in making steel, comes from India.

The United States has political ties with Southeast Asia. Our country is a member of the Southeast Asia Treaty Organization. This organization, often called SEATO, is a group of nations that oppose the spread of communism in Asia. The other members of SEATO are the United Kingdom, France, Australia, New Zealand, Pakistan, the Republic of the Philippines, and Thailand. SEATO set up headquarters in Bangkok, the capital of Thailand, on June 24, 1956.

The United States is also a member of an organization called ANZUS. The members are Australia, New Zealand, and the United States. Do you see how the name ANZUS has been formed? The three nations have agreed to defend the area south and southeast of the East Indies against any outside attack.

Each of the five great regions of the Far East is geographically separate from the other four. Each has its own ways of living and its own problems. Today, within these regions there is a new Pakistan, a new India, a democratic Japan, and a new Indonesia. Ceylon, Burma, Malaya, Thailand, Laos, Cambodia, and North and South Vietnam are also new nations. The United States wishes to be a friend to these new members of the world family of nations.

The members of SEATO are holding a meeting in Bangkok, Thailand. Can you read the nameplates of some of the nations? What countries belong to SEATO? Why was it organized?

Wide World Photo

TO HELP YOU LEARN

Words and Terms to Remember

dynasty
opiate
legend
shogun
bamboo
Shinto
cultured pearl
war lord

A Matching Game

Number a paper from 1 through 8. After each number write the word or term from the list above which matches the definition.

1. A Japanese feudal lord
2. A Japanese religion which once considered the emperor divine
3. A drug used to deaden pain
4. A kind of gem produced by an oyster under man-made conditions
5. A story that survives from the past by being told orally
6. A period during which China was governed by rulers from the same family
7. A Chinese leader who had his own army
8. A canelike grass that grows in many sizes and has many uses

Finding the Facts

1. Where did early civilizations grow up in the Far East?
2. Why are most countries of the Far East unable to import the food they need? What effect does this have on the number and size of farms in the Far East?
3. Why are flat lands best for growing rice? How do farmers grow rice in hilly regions?
4. What training, gained under British rule, enabled the leaders of India to assume the responsibility of self-government?
5. Describe an Indian village—its houses, its market, its mills.
6. What two grains are basic food crops in India? Where is each grown?
7. What is a village in Pakistan like?
8. How and when did France lose control of Indochina? Into what countries is Indochina now divided?
9. Why are many houses in Southeast Asia built on stilts?
10. How was a republic established in China under Sun Yat-sen? What group took control of China in 1949?
11. Name four leading cities of China. Tell why each is important.
12. Why did Japan close its ports to foreigners many years ago? Why did it finally open its ports? How did it build an empire?
13. Why does Japan have many earthquakes?
14. How do the Japanese make the greatest possible use of their farming land? Why can Japan grow rice farther north than China can?
15. What essential raw materials must Japan import? How do the Japanese pay for these imports?
16. What misfortune befell South Korea in 1950? What action did the United Nations take?
17. Why are the South Koreans not able to grow as much food per acre as the farmers of China and Japan?
18. Why was Indonesia less well prepared to govern itself than India was?
19. Name the four leading islands of Indonesia. Describe the resources and crops of each.
20. What do the initials SEATO stand for? What is the purpose of this organization?

Using Maps

1. Turn to the map of Asia on page 305 and note the boundaries of the Far East. Locate India, Pakistan (East and West), China, Burma, Malaya, and Japan. What are the capitals of these nations? What important groups of islands lie off the coast of the continent of Asia?
2. Where are Asia's highest mountains found? Where are the plains areas? Why are the plains important to the people of Asia? What are two important rivers of India? of China?
3. Look at the global map, page 45, and find New Delhi, India. Between what parallels of latitude does it lie? From this can you estimate its latitude? On the map, page 44, find the city in the United States which has approximately the same latitude. On what parallel of latitude is Peking, China? What city in the United States has about the same latitude?

   What is the approximate longitude of New Delhi? To determine its longitude, decide whether it is about midway between two meridians or nearer to one than the other. What city in the Western Hemisphere has about the same longitude? Why is it necessary to know both the latitude and the longitude of a place to determine its location?
4. Use a ruler on the map of Asia, page 305, to measure India at its greatest width. Use the scale of miles to find India's width in miles. In the same way measure India from north to south. What is the distance in miles? Next turn to the map of the United States, page 61, and use the scale of miles to find the greatest east-west and north-south distances of our country. Be sure to look at the scale of miles on this map before doing your multiplying. How do these measurements of India compare with those of the United States?
5. Where is the island of Formosa (Taiwan)? What government has its headquarters on this island?
6. Turn to the map of monsoons on page 304. In what direction do the monsoons blow over Southeast Asia in July? In January? What effect do these winds have on the climate of Southeast Asia during July? During January?
7. On the map, page 305, point out Japan, Korea, and Manchuria. Can you see why Korea and Manchuria were two early victims of Japanese aggression? In giving your answer, consider the locations of these countries, their natural resources, and the kind of people in each land.
8. From the world-trade map of the Far East, page 348, make a list of the Far Eastern countries whose exports consist largely of raw materials. Make a second list to show the nations that export factory products. Now look at the industrial regions maps on pages 316 and 340. Is the Far East a highly industrial region compared with western Europe? With Latin America? From your study of the text and the imports and exports shown on page 348, what kinds of factories might be established in countries that now lack industries?

Can You Find the Right Order?

The following events are not arranged in the order in which they happened. Put them in their proper chronological order.

1. Pakistan and the Republic of India given independence
2. China ruled by Kublai Khan
3. Communists gain control of China
4. Invasion of South Korea by North Korean troops
5. Great Wall begun in China
6. Vasco da Gama reached India
7. Republic set up in China by Sun Yat-sen
8. Japan defeated in World War II
9. Birth of Confucius
10. Arrival of Commodore Perry in Japan
11. Malaya proclaimed independent
12. Invasion of Manchuria by Japanese armies

Making Geography Real

China is a nation with many walls. There are small walls around villages and huge walls around cities. Some cities are divided into parts by a series of walls. In fact, China itself is divided by a wall—the Great Wall.

The Great Wall of China begins on the coast near Peking and winds westward across plains through mountainous areas until it reaches the deserts of Central Asia. With its branches the wall is about 2000 miles long. It is strengthened along its course by towers which were once used as look-out stations by soldiers.

It was the Chinese emperor, Shih Huang-ti, who had the idea of building the wall. He thought it would prevent the Mongol horsemen of the north from invading his empire. The wall served this purpose for a time. When they could not ride southward into China, the Mongols galloped westward into western Asia and Europe. There they were known as Tatars.

The wall protected China for many years. But the Mongol hordes were increasing in strength. Eventually they found their way around the wall, rode into China, conquered it, and established a Mongol empire.

After a time a new dynasty came to power in China. And again China was threatened by an invasion. So the Chinese rebuilt the wall, using stone, and made it the largest defense structure the world has ever known. Now the Chinese felt themselves safe. But they were not really safe.

Again enemies threatened China, this time from the east. The Japanese came by sea, fought the Chinese, and gained territory. Later, the Japanese sent great fleets of planes over China and attacked it by air. Never again did the Great Wall protect China against its enemies.

1. Who built the first Chinese wall? For what purpose?
2. How did the wall affect Chinese history?
3. How did it change European history?
4. Why did it cease to be a defense to China?
5. What does the history of this wall prove about defenses?

Interesting Things to Do

1. Marco Polo, Vasco da Gama, Mohandas K. Gandhi, and Matthew Perry are important in the history of the Far East. Divide the class into four groups—one for each of these men—and let each group find information about the man assigned to it. Each group may then prepare a brief radio report for the class. The dramatization should stress what each man did to earn a place in history.
2. Using an encyclopedia or other reference books, make a list of the chief contributions of ancient India and ancient China to civilization. Then prepare a display of as many of these gifts as possible. *Suggestions:* a sample of silk will represent China and a bit of cotton cloth will represent India. Be prepared to tell the story of each of these gifts to civilization.
3. Make a collection of the raw materials or products that we obtain from the Far East. First, make a list of these imports. Next, decide which imports (such as tea, pepper, silk, and rubber) can be shown and which (like manganese and teakwood) will be represented by pictures in magazines and books. Since you cannot cut pictures from books, prop the books open for the display. In your community there may be people—soldiers, missionaries, or tourists—who have spent time in the Far East. Invite some of these people to speak to your class about the countries they visited. Ask them to bring with them pictures or souvenirs to illustrate their talk.
4. Newspapers and news magazines carry many stories about life in the Far East. Watch for such stories and report on the events to the class. Post important clippings on the bulletin board. Your reports of events in various countries should cover such points as (1) the kind of government of the country concerned; (2) the living standards of its people; and (3) what ties, if any, the United States has with it.

Making Comparisons

Without its farmers no country could exist. Compare the farmers of the Far East with farmers in the United States on the following points:

1. *Numbers.* As you know, four out of five persons in the Far East make their living by farming. Use the reference tables (pp. 517–518) to find the population of the Far East. Then by division find the number and the percentage of people who engage in farming in the Far East. In an almanac find the farm population and the total population of the United States. Then by division find what percentage of our people engage in farming. Is our percentage higher or lower than the percentage in the Far East? What accounts for the difference?

2. *Crops.* Reread Unit 7 and make a list of the crops grown in the Far East. Refer to Unit 2 of your text and an almanac to find the chief crops of the United States. Which of the crops are the same in both regions? Which are different? How do you explain the difference? The maps of world climates and world rainfall, on pages 52–53, will help you answer this.

3. *Tools.* Compare the tools and the methods of work on farms in the Far East with those in the United States. Supplement the information in your textbook by consulting an encyclopedia and other reference books. Look under such headings as "Farming" and "Agriculture." What conclusions can you draw about the Far East from the facts that you have learned?

Making a Graph

Study the graph on page 306, which compares the United States with the Far East in area and population. Now find the population density of each region. To obtain the figure for density, divide the population by the area in square miles. Complete each answer to the nearest whole number, dropping the fraction.

Next, make a graph which will compare the population density of the United States with other countries of the Far East. Begin with Burma, which has an area of 261,757 square miles and a population of 20,662,000. Use squares to represent the number of people per square mile. Let each square equal ten people per square mile. Divide the last square, if necessary, so that it will represent a number less than ten as follows:

Burma	□□□□□□□□	78
United States	□□□□□	49

Now continue the graph by finding the population figures and the areas of China, India, and Japan in the reference tables (pages 517–518). Following the directions outlined above, find the density of each country. Then add these three countries to the chart and draw in the correct number of squares for each country.

Look at page 297 and decide what kind of graph you have made.

Things to Think About

1. India is in an early stage of the Industrial Revolution, whereas Japan is in an advanced stage. How can you account for this difference in progress, especially when you recall that Japan was badly defeated in World War II? What do you think India should do in order to make rapid progress?
2. If you had been born in an Indian village instead of in the United States, how would your life be different from what it is today? Give as many details as you can.
3. About one hundred years ago Commodore Perry visited Japan and gained its agreement to open its seaports. If Perry had not visited Japan, do you think Japan would still be a hermit nation today? Or would it have been opened to the outside world in some other way? Give reasons for your opinion.
4. Certain Communist countries of central Europe are called satellites of the Soviet Union. Should Communist China be considered a satellite of the Soviet Union, too? Why, or why not?

Growing coconuts
in the South Pacific

Fishing with nets
in the Philippines

8.

Australia and the Islands of the South Pacific

Sheep raising
on a New Zealand ranch

Mining gold
in western Australia

CAPTAIN James Cook, of England, was sailing in the broad Pacific Ocean. The year was 1778, and this was his third voyage in the Pacific. A steady breeze blew from the northeast, for Cook was in the wind belt of the trade winds. Far away on the horizon white, puffy clouds hung lazily in the sky.

The English captain raised his telescope with an eager gesture. Low clouds of this kind in the Pacific often indicate the existence of an island. Such clouds are formed by the rising of warm air from the land. The sailors shared their captain's excitement. On this and on his two previous voyages Captain Cook had discovered and placed many islands on his map.

Sure enough, there was land ahead. As the ships drew closer to the island, the sailors saw lush, tropical vegetation. The sailors went ashore and were greeted by friendly natives. The island that Captain Cook had discovered was one of the group of Pacific islands now called Hawaii.

After a brief visit Captain Cook again set sail and steered to the east. After many days he reached the west coast of what is now the United States. He then sailed northward until he entered the Bering Sea. But winter was coming on. It would soon be impossible to sail northward in that icy region. He recalled the warm tropical island that he had visited. He decided to return there to spend the winter.

Some weeks later Captain Cook and his crew were back in Hawaii. The island they reached on this second visit was the largest island of the group, the one now called Hawaii. As the Englishmen sailed nearer, they saw natives waiting on the beach. In open spots back of the beach were carefully tended gardens where tropical vegetables and fruits grew.

Cook and his party went ashore. They remained on the island for two months. During this time his men sailed around the island, while their captain drew maps of the shore.

One day Captain Cook found that a lifeboat had disappeared from one of his ships. The English sailors learned that the Hawaiian natives had broken up the boat to get the nails from it. This made the sailors very angry. A fight followed. During the fight Captain Cook and four of his men were killed. Thus Cook lost his life on a Pacific island.

Captain Cook was not the discoverer of the Pacific. But he was the greatest explorer ever to sail the great ocean. He made maps which showed nearly all of the island groups in their correct location. Maps of the Pacific Ocean today show mountains, straits, and towns that bear his name. The great area of the Pacific still remembers and honors Captain Cook.

In this unit you will learn about many of the places in the Pacific that Captain Cook visited. It will answer such questions as the following:

1. Why are we interested in the Pacific Ocean region?
2. What island groups are in the Pacific?
3. Why are New Caledonia and the Fiji Islands of interest to us?
4. What is life in the Philippine Islands like?
5. How do the people live in New Zealand?
6. Why is Australia a great nation?

1. OUR INTEREST IN THE PACIFIC

The Pacific Ocean is the largest body of water in the world. It makes up almost half of the total water of the earth and covers about one third of the earth's area. This ocean stretches more than 10,000 miles from the western edge of Alaska to the continent of Antarctica. Nearly 10,000 miles of water lie between Panama and the western part of the China Sea, an arm of the Pacific.

The Pacific is also an ocean with great depths. Near the Philippines and near Japan it is more than seven miles deep. If the world's highest mountain could be dropped into the Pacific at either of these points, the top of the mountain would be more than a mile below the surface of the ocean.

STEPPINGSTONES TO ASIA

For more than one hundred years after our War for Independence, pioneers made their way westward in the United States. By the 1840's settlers had made their way to the Oregon Country and to California, on the shores of the Pacific. Fifty years later the Hawaiian Islands asked to become a part of the United States. About this time some of the battles of the Spanish-American War were fought in the Pacific. As a result of the war, a number of Pacific islands in the tropics became United States possessions. Within a few years our country had island steppingstones across the ocean almost to the shores of Asia and southward toward Australia.

The map on pages 360–361 shows that the Pacific Ocean has many island groups. Let us follow the map as we note the island groups of the United States in the Pacific.

The Hawaiian Islands

Two thousand four hundred miles southwest of the United States mainland are the Hawaiian Islands, discovered by Captain Cook. Find the latitude of these islands on the map. What part of North America lies due east of the islands?

Department of Interior

This native of the Marshall Islands stands beside his canoe. People of the Marshalls and other islands have used canoes like this for hundreds of years.

Ewing Galloway

The Melanesians above are in an "outrigger." This is a canoe with a log attached to it by a framework to keep the canoe from turning over.

In the picture below, women of the Caroline Islands wear elaborate headdresses and grass skirts while they perform a native dance.

Trust Territory of the Pacific

The Hawaiian Islands and the seaport city of Honolulu are sometimes called the "Crossroads of the Pacific" because shipping routes and airplane routes cross and divide there. Ships and planes connect Hawaii with the United States mainland to the east, with Asia to the west, and with Australia and New Zealand to the southwest. A sea route from Asia through the Panama Canal also leads to Honolulu, which is on the route.

Midway and Wake

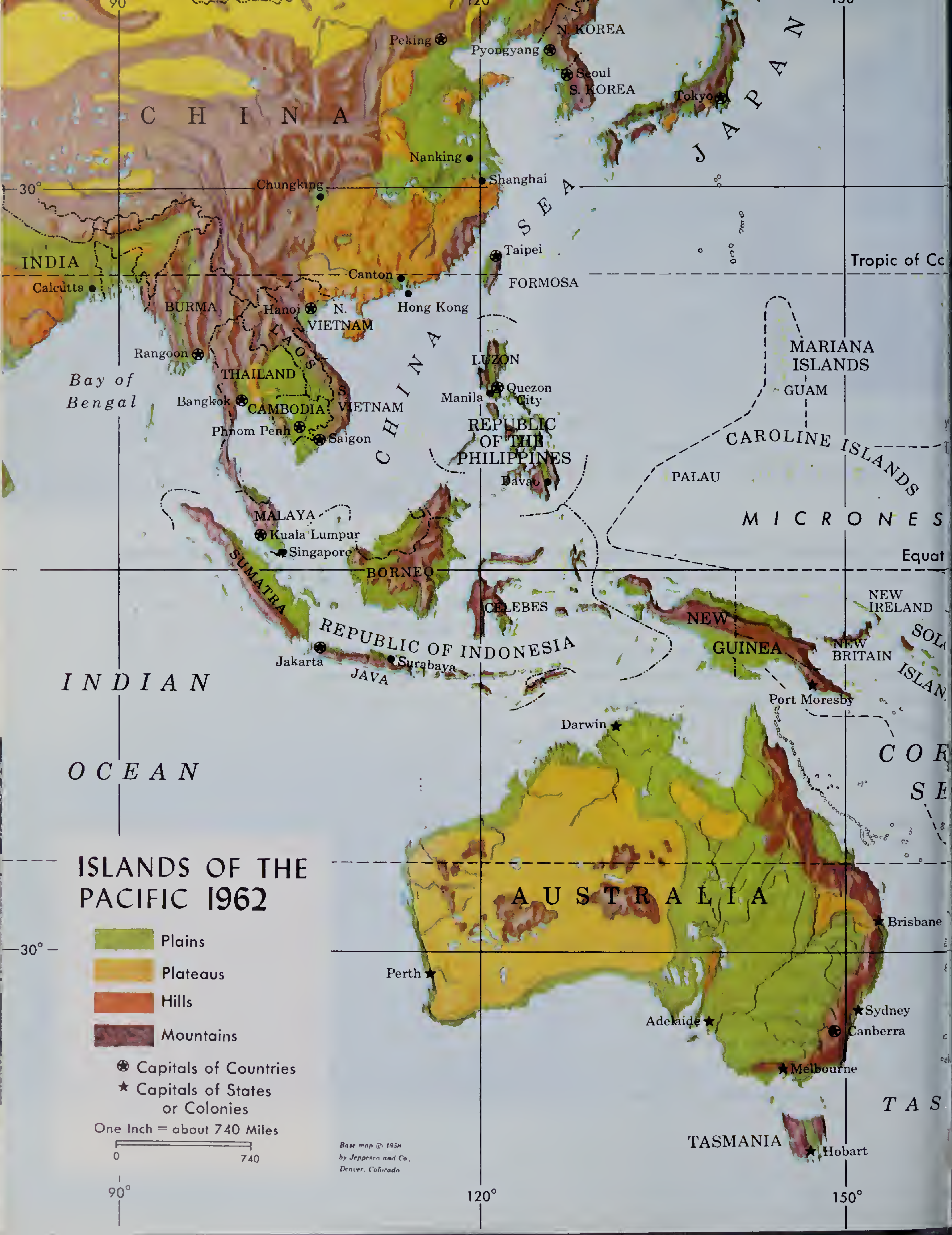
West of the Hawaiian Islands are Midway and Wake. The small islands of Midway were discovered and claimed by the United States in 1859. Midway is 1300 miles from Honolulu. It is important as a United States air base and a cable station.

Wake was occupied by United States troops in 1898, during the Spanish-American War. It is 2300 miles west of Honolulu. For many years no one lived on this island, which is only three square miles in area. Then an air-line company decided that Wake would be a good place for planes to refuel and obtain other supplies. In 1935 the company built an airport, a hotel, a repair shop, and houses for its workers. The air line also built a power house and a radio station. Later our government built an air base there.

Early in World War II, the Japanese captured Wake and held it until the end of the war. During this time United States planes had to make long flights over water without stopping for supplies. Such flights were difficult and dangerous at the time.

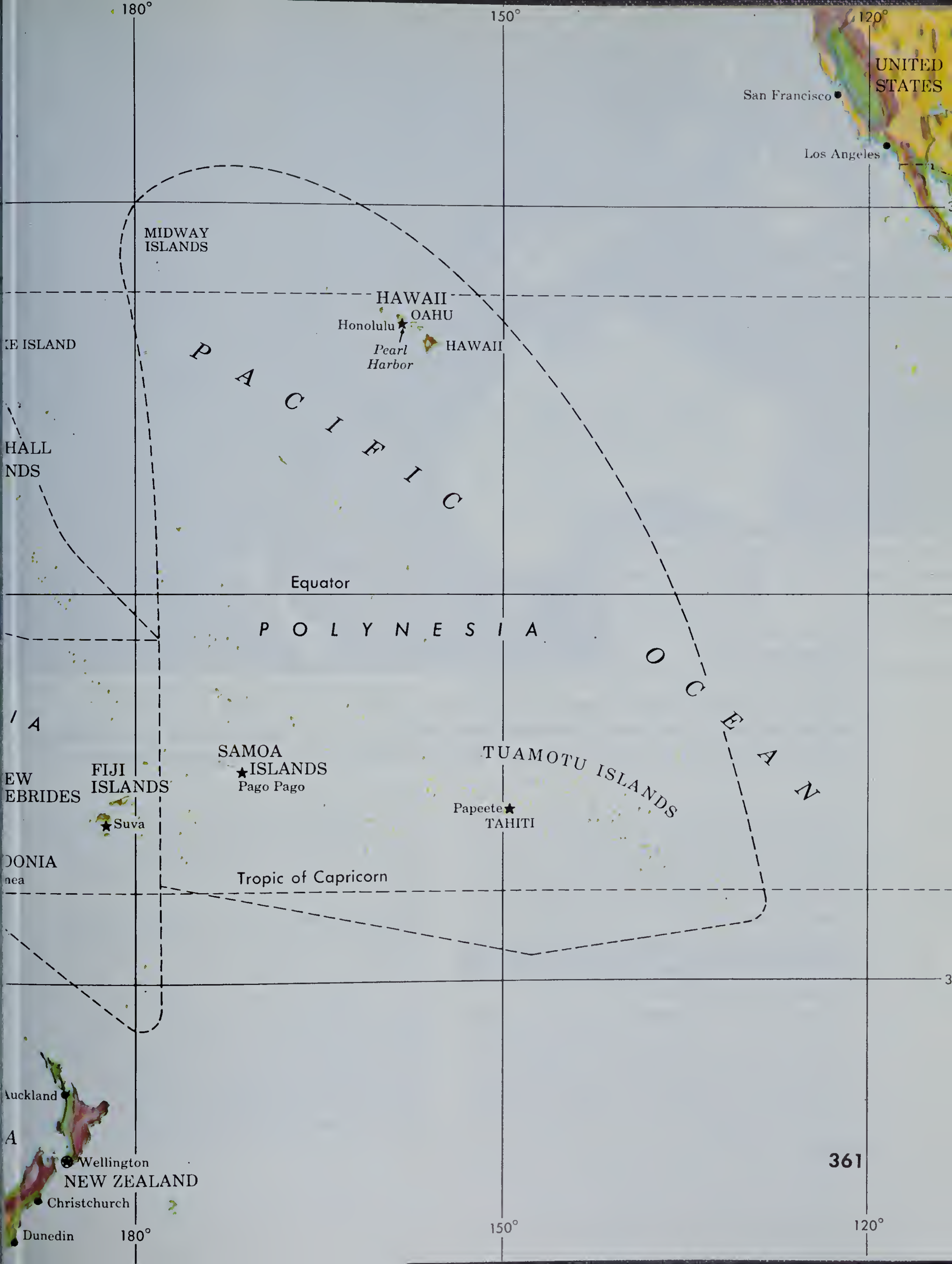
The territory of Guam

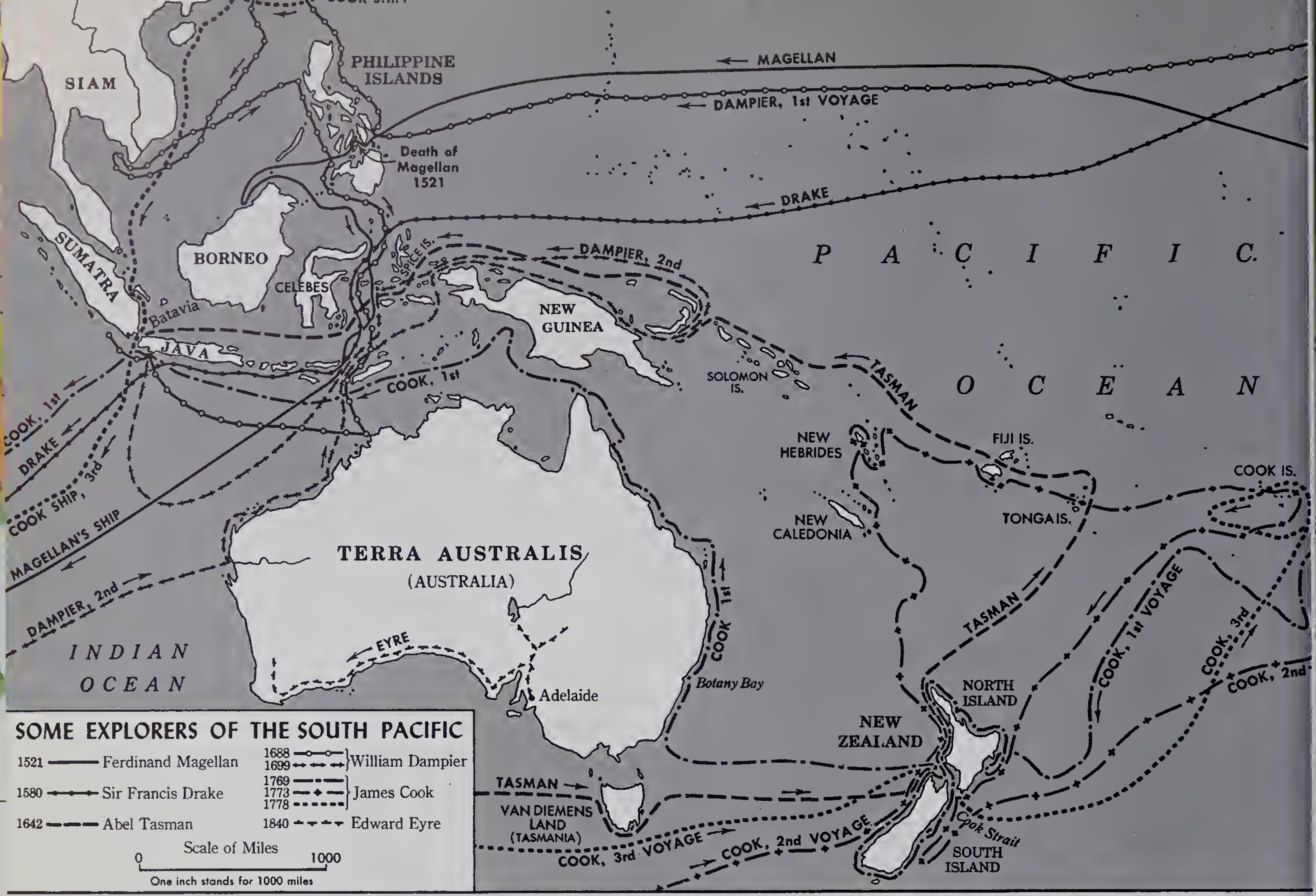
Fifteen hundred miles west of Wake is Guam, the largest island of the Marianas Archipelago (see the map, pages 360–361). Today, with improved equipment, some airplanes fly directly from Honolulu to Wake and then to Guam, without stopping at Midway. From Guam it is 1600 miles to Manila. Or they can fly northward to Tokyo.



ISLANDS OF THE PACIFIC 1962

Base map © 1958 by Jeppesen and Co., Denver, Colorado


180°
150°
120°
UNITED STATES
San Francisco
Los Angeles
MIDWAY ISLANDS
HAWAII
OAHU
Honolulu
HAWAII
Pearl Harbor
E ISLAND
HALL
NDS
PACIFIC OCEAN
Equator
POLYNESIA
A
SAMOA ISLANDS
Pago Pago
FIJI ISLANDS
Suva
EW
EBRIDES
TUAMOTU ISLANDS
Papeete
TAHITI
DONIA
nea
Tropic of Capricorn
Auckland
A
Wellington
NEW ZEALAND
Christchurch
Dunedin
180°
150°
120°



This map shows the routes of the most important explorers of the South Pacific. Who was the earliest explorer in the area? Who came next? What part did explorers play in opening up the South Pacific to trade and settlement? Name the lands that are independent nations today.

Guam was discovered by Ferdinand Magellan in 1521. Spanish settlers came to Guam, and Spanish missionaries brought the teachings of Christianity to the natives of the island. Guam became a United States possession during the Spanish-American War. In World War II, Japan held the island for two and one-half years.

Guam covers about 200 square miles. This is less than the area of New York City. Today Guam is an important United States naval base. In 1950 it was made a territory of the United States. Its people elect their own legislature. It has a governor appointed by the President of the United States. Agana, the capital of Guam, has a fine harbor.

STEPPINGSTONES TO THE SOUTH PACIFIC

After stopping at Hawaii, a plane bound for Australia makes a stop at either the Samoa Islands or the Fiji Islands. Find these island groups on the map on pages 360–361. Some of the Samoa Islands belong to the United States. The rest, formerly governed by New Zealand, became independent in 1962. The Fijis belong to Great Britain.

American Samoa

American Samoa is run by the United States Department of Interior, which appoints a governor. Pago Pago, the capital, has a very fine harbor.

The Fiji Islands

The Fiji Islands share with American Samoa the business of helping airplanes to refuel and to make repairs. Suva, the capital, has a fine harbor and an important airport.

From American Samoa, or from Suva, the air routes proceed to New Caledonia. Then they divide. One route proceeds to New Zealand, the other to Australia.

Other small islands

Some small islands in the Pacific belong to the United States. Most of them are used as cable and radio stations. One of these is Johnston Island, 700 miles southwest of Hawaii. The last census showed that, except for the Navy people who come and go, only sixty-nine people live on the island. The other small islands also have few people.

Trust Territory of the Pacific

Find the Caroline, Marshall, and Mariana islands on the map, on pages 360 and 361. These island groups compose the United States Trust Territory of the Pacific. In governing these islands, the United States is the *trustee* under the United Nations. A trustee is a person, organization, or nation who is entrusted with the care of property not his own. A nation which is a trustee holds the land in its care.

Before World War I, these Pacific islands belonged to Germany. After Germany's defeat, the League of Nations put the islands under the care of Japan. In World War I, you will remember, Japan had fought with the Allies against Germany. Japan fortified the islands and acted as though it owned them.

In World War II, Japan fought on the side of Germany and against the Allies. During this war the Pacific islands held by Japan served as bases for attacks by the Japanese on United States ships.

But the United States built up its forces in the Pacific. Then our troops began to conquer the islands, one by one. The war ended in the complete defeat of Japan. After that the United Nations made the United States the trustee of the islands.

The governor of the islands, called the High Commissioner of the Trust Territory, lives at Agana, on the island of Guam. Guam, as you can see from the map, is a somewhat central spot from which to govern the islands. About 85,000 people live in the Trust Territory. Most of the islands are less than one square mile in area. But they are so thickly populated that the people have trouble getting enough food. Today the United States sends food and other supplies to the islands.

At times some of these faraway islands are mentioned in the news. Our government has tested atomic bombs and hydrogen bombs on Bikini and Eniwetok, two islands in the South Pacific. Because of the testing program Eniwetok is now a closed area. The inhabitants of the island were moved by the United States government to another island for their safety.

Do you know—

1. How large is the Pacific Ocean? How deep is it at its deepest point?
2. What is the importance of Midway and Wake to the United States?
3. What groups of islands make up the Trust Territory of the Pacific?

2. ISLAND GROUPS OF THE PACIFIC

The map on pages 360–361 shows that the islands of the Pacific are made up of three main groups. These groups are Polynesia, Melanesia, and Micronesia. Let us consider the different peoples who live in the different island areas.

PEOPLES OF THE ISLANDS

Polynesia is a word that means "many islands." The Polynesians are a good-looking, well-built people, with somewhat broad faces and glossy black hair. The Hawaiian Islands, as you see, lie in the area of Polynesia. Today, however, few of the islanders are Polynesians. People from many lands of the world have moved to Hawaii, settled there, and intermarried with the original inhabitants.

Tahiti is considered by scientists to be the original homeland of the Polynesian people. Find Tahiti on the map. From there, many years ago, they migrated to other islands in long, narrow, sturdy boats, paddled by several oarsmen. The map shows the great expanse of ocean that the Polynesians crossed to reach the Hawaiian Islands.

Most of the people of Melanesia are Negroes. The people of New Guinea, part of which lies in Melanesia, are also Negroes.

Micronesia is a word that means "small islands." The people of this large area are a mixture of Polynesians, Melanesians, and of Malayans from the East Indies.

KINDS OF ISLANDS

The islands that lie in the tropical waters of the Pacific Ocean are of two kinds. They are often called "high" islands and "low" islands. These names, used by both natives and outsiders, describe the two kinds of Pacific islands very well.

High, or volcanic, islands

High islands have been formed by volcanoes that have risen from the floor of the ocean and emerged above the surface of the water. A high island is thus the top of a volcanic mountain. In parts of the Pacific, where volcanoes are numerous, many islands are of volcanic origin. Most high, or volcanic, islands rise between 100 and 2000 feet above the surface of the sea. Their soil is rich, and they are covered with dense tropical vegetation.

In general, the high islands are well populated. The people who live on them are farmers. Bananas, coconuts, sweet potatoes, *taro,* and other tropical products are grown. Taro is a tropical plant which has a large leaf and a fleshy, starchy root. The leaves are cooked like spinach, and the roots are boiled and eaten like potatoes. Taro is a basic food of the natives of the South Pacific. They also eat much fish.

On some of the larger volcanic islands, such as the Hawaiian Islands and the Fijis, are large plantations. Workers from Asia have been brought to the islands to work on the plantations.

Another important feature of the high islands is an abundant supply of fresh water. Streams are fed by the rainfall of the highlands. Many streams flow to the ocean.

Low, or coral, islands

The low islands are formed of *coral.* Coral is a kind of rock made of the shells of tiny sea animals, called *polyps.* The polyps live in water in shells which are attached to rocks. When they die, other polyps attach themselves to the shells they leave behind them. There are billions of polyps in the tropical

THREE SCENES IN THE PACIFIC

The scene at the right shows the beautiful harbor where the city of Pago Pago, in Samoa, stands. What do the picture and the map on pages 360–361 tell about the climate?

Matson Line

Ewing Krainin

The picture at the left shows outrigger canoes which are used for fishing in the South Pacific.

The picture below shows a village on the water in New Guinea. The homes are on stilts.

E. T. Gilliard, American Museum of Natural History

Pacific. The shells that they leave accumulate, and in time they form stretches of coral rock. The islands formed by these stretches of coral rise only six to fifteen feet above the surface of the Pacific.

The low, or coral, islands are called *atolls*. Most atolls are less than two square miles in size. Some are even smaller. Bikini, Eniwetok, and most of the other islands of our Trust Territory are atolls.

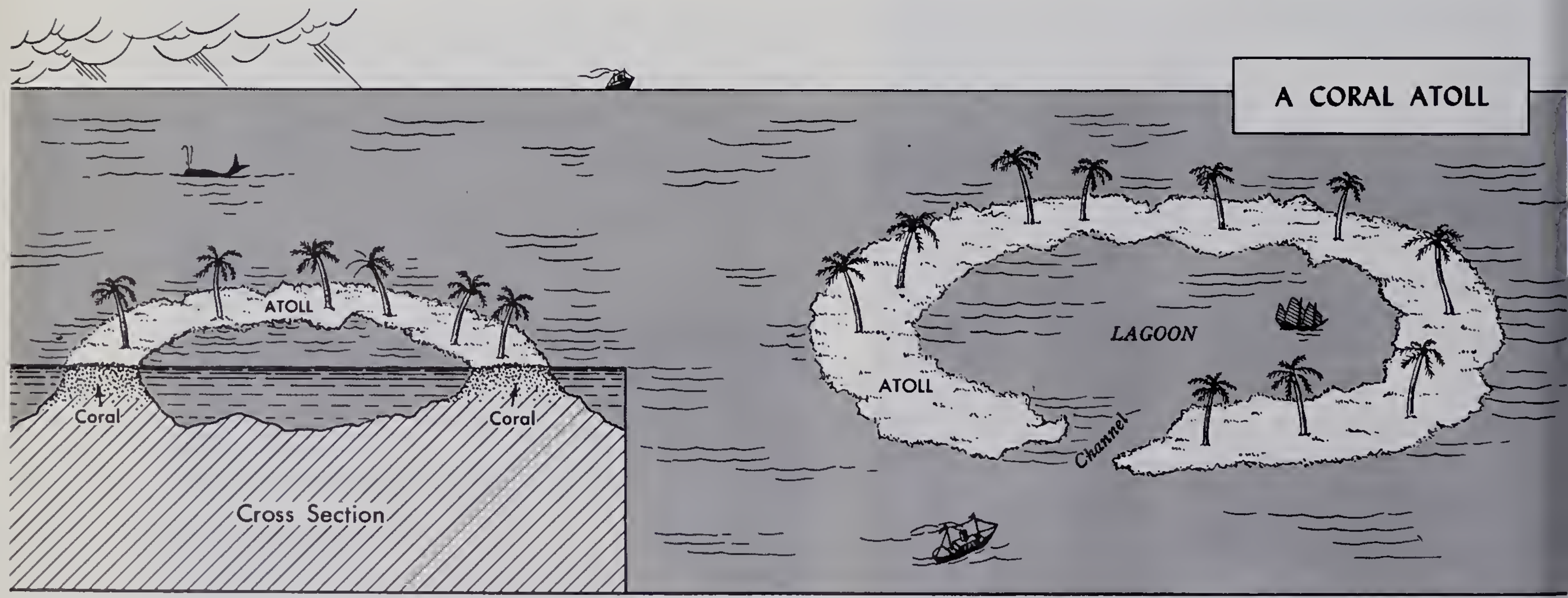
Many small atolls are shaped in a circle or a semicircle so that they surround, or nearly surround, a central lagoon. A lagoon is a shallow lake. Thus one side of an atoll faces the open ocean, but the opposite side faces the quiet waters of the lagoon. Ships anchor in the quiet lagoons rather than in the open sea. However, life on an atoll can be dangerous when severe storms drive through the southwest Pacific. In such times, high waves wash across the low islands and sweep the inhabitants into the lagoons.

Although the atolls are very small, they are densely populated. The soil is not fertile, for it is made up of small bits of coral shells, called coral sand. There are no streams of fresh water on the islands. All the water for drinking or cooking must be caught in containers when it rains. The water from wells drilled on these islands is usually salty and unsuitable for drinking.

For food the islanders depend to a large extent upon fish, which they eat raw. They spend most of their time fishing in the lagoons. At times they travel to faraway waters in search of fish.

Coconut palms grow well on these islands. The people depend on the coconut palm in much the same way that the people of the desert oases depend on the date palm. They eat the meat of the coconut and drink the milky juice which fills the center of the nut. They use the fiber of the bark of the coconut to make rope and sails for their boats. They cover the roofs of their houses with palm leaves. They squeeze oil from the meat of the coconut and use it for lighting and for cooking purposes.

This diagram shows a coral atoll like many in the Pacific. The United States owns some of these low islands. Why do protected bodies of water such as lagoons make good harbors for ships?



United Nations Photo

The building with a thatched roof is a men's clubhouse on one of the Caroline Islands.

Trust Territory of the Pacific

Here natives of the Caroline Islands prepare the coconut crop to be dried into copra.

The people on these coral islands grow a few vegetables, mainly taro, in garden patches. Since vegetables will not grow in coral sand, the islanders must make the soil for their gardens. First, they dig a large pit and fill it with palm leaves and other vegetation. As this decays, more vegetation is thrown into the pit. In time, a dark soil is formed, and vegetables can be grown in the pits. The pits are called taro pits because this is the product most often grown on these small, sandy islands.

Village life in the islands

In the islands people usually build near the shore to be near the fishing areas. But the volcanic islands sometimes have inland villages. The houses, most of which are small huts, are built on stilts a few feet off the ground. This kind of location protects the family from high water and from the many crawling insects and land animals. The houses are often built in a straight line near the beach. Most villages thus are long and narrow in appearance. On the coral islands the villages are built on the lagoon side of the atoll.

The members of a family group usually live in several huts built close together. In the South Seas a family group is composed not only of the father, mother, and children, but it includes also the grandparents and the grown sons, their wives, and their children. In these islands girls, when they marry, go to live with their husbands' families. Land on the islands is owned by the family as a group rather than by individuals.

Do you know—

1. What are the three main groups of Pacific islands?
2. Why are some islands of the Pacific called high islands?
3. What is another name for the low islands? How were they formed?
4. What crops are grown on the low islands?

3. NEW CALEDONIA AND THE FIJI ISLANDS

New Caledonia and the Fiji Islands lie in the tropical waters of the Southern Hemisphere. Both island areas are important in farming and in trade. In this they resemble the Hawaiian Islands. Captain Cook was the first European to visit New Caledonia.

WHAT NEW CALEDONIA IS LIKE

New Caledonia, which is a French colony, is one of the largest islands in the Pacific. It is 250 miles long and about thirty miles wide. Its area is about that of Massachusetts. Noumeá, the capital, has a fine harbor and a large airplane base. The city is a smelting and exporting center for minerals. With its coffee shops and sidewalk cafés, Noumeá has the look of a French city.

New Caledonia is one of the few Pacific islands which is neither a volcanic island nor an atoll. Its rocks are like those of a continent. Seventy thousand people live and work in New Caledonia.

Kinds of crops

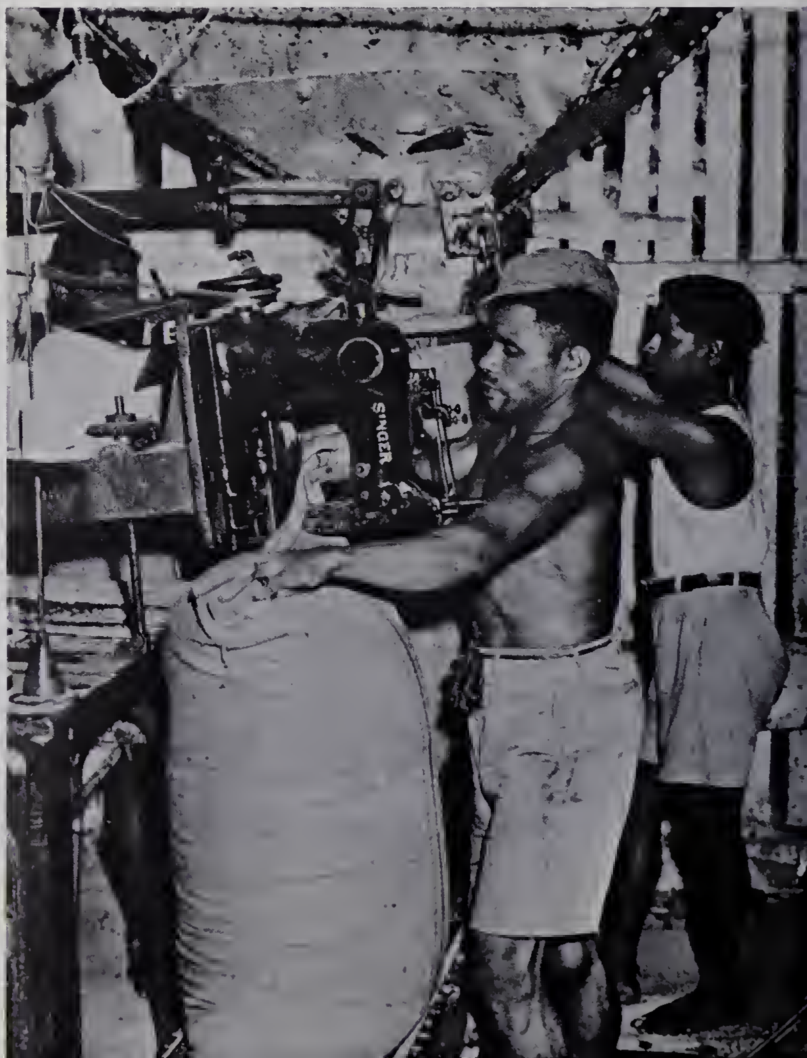
Frenchmen own fine coffee plantations and cotton farms in New Caledonia. Men have been brought from Vietnam, from Java, and from Japan to do the plantation work. The coffee and cotton grown in New Caledonia are shipped to France and to the temperate lands of Australia and New Zealand, where these products cannot be grown. In France, New Caledonian coffee sells at a high price because of its excellent quality. It is roasted

Women at a Fiji market look at a display of yams, a favorite vegetable in the Fijis.

British Information Services

Sugar, one of the chief exports of the Fiji Islands, is put into bags on the plantation.

British Information Services



in such a way that it has a strong, almost bitter, flavor that is popular in the cafés.

Kinds of mines

The nickel mines of New Caledonia are famous. Only Canada and the Soviet Union produce more nickel. Chromium ore and iron ore are also mined. The people who work in the mines and smelters are Asiatics. Descendants of the original natives live on reservations and follow the same customs as their ancestors did.

WHAT THE FIJIS ARE LIKE

The Fiji Islands are the crossroads of the South Pacific, as the Hawaiian Islands are the crossroads of the North Pacific. Only eighty of the more than 250 Fiji Islands are inhabited. Almost 400,000 people live on these islands. Suva is the capital.

Tropical products

The British-owned Fijis have such important sugar plantations that they are sometimes called the "sugar islands." Coconuts, copra, and bananas are also important products of the Fiji Islands. Copra, you recall, is the dried meat of the coconut. It is valuable for the oil that can be pressed from it. The oil is useful in the manufacture of margarine and of soap.

Ways of living

The people of the Fijis do not make good plantation workers. As a result, the British brought people from India to work in the fields. Today the population of the islands is composed of Fijians and East Indians in almost equal numbers. Many of the East Indians now have their own farms, with the same crops grown on them as are produced on the large plantations.

Do you know—

1. How large is New Caledonia? To whom does it belong?
2. Where are the Fiji Islands? To whom do they belong?
3. What are the main crops of New Caledonia? Of the Fijis?

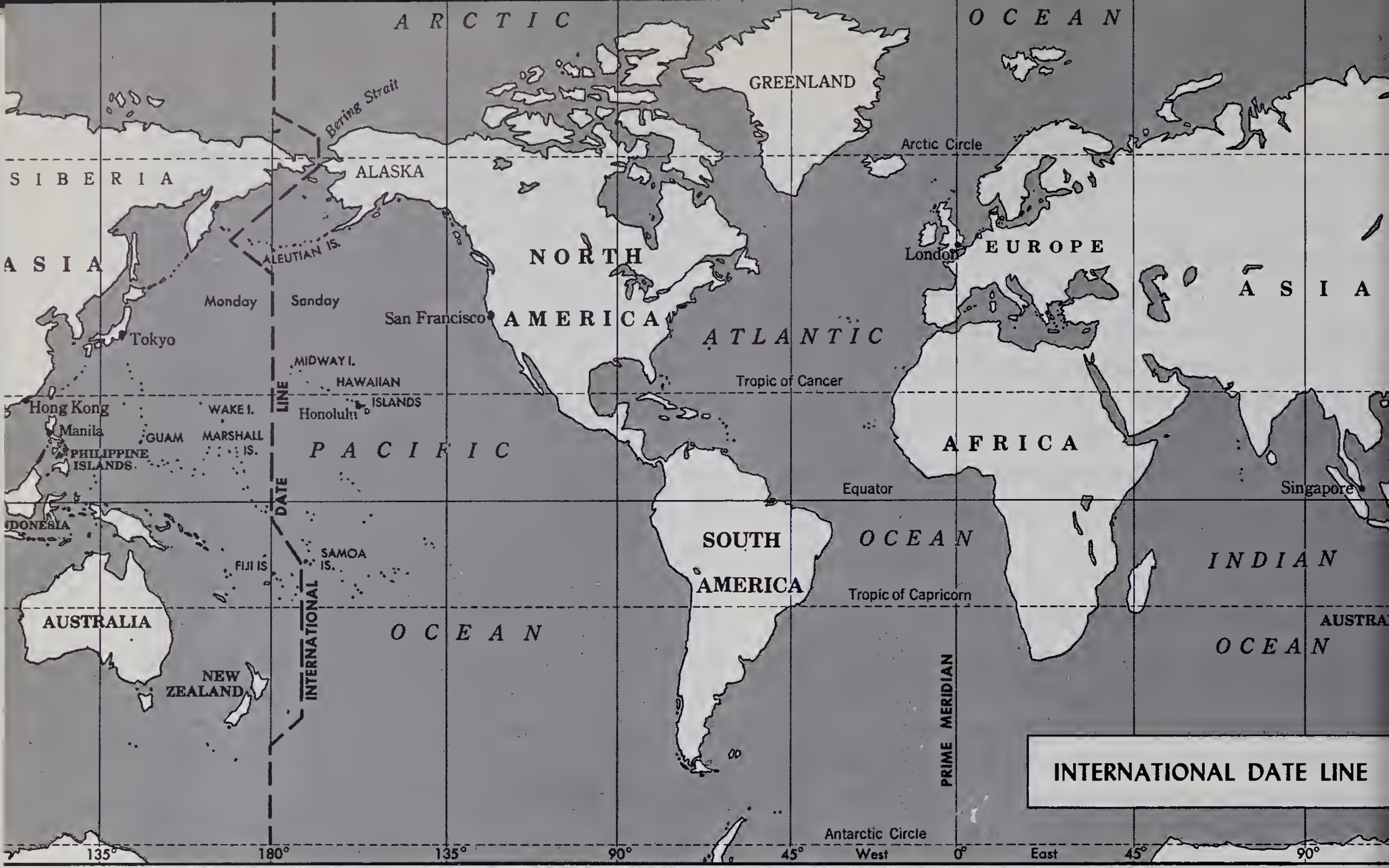
Words and Terms to Remember

trustee coral atoll taro polyps

A Matching Game

Number a paper from 1 through 5. After each number write the word or term from the list above which matches the definition.

1. A plant with a starchy root which is cooked and used as food throughout the tropics
2. A rocklike substance which is formed from the skeletons of millions of tiny sea animals
3. A low, coral island in the Pacific Ocean made up of a belt of coral reef surrounding a central lagoon
4. Tiny sea animals which live in tropical waters and whose skeletons form a rocklike substance
5. A person, organization, or nation which has the care of lands or other property not its own



The International Date Line is an imaginary line corresponding to the 180th meridian, except where it bends to the east or to the west to avoid dividing a country or an island group. As the map shows, this meridian is exactly halfway around the world from the prime meridian (0°).

4. LIVING IN THE PHILIPPINE ISLANDS

Let us now take a plane from Honolulu to the Philippine Islands. As we fly over the wide expanse of the Pacific Ocean, we realize how much faster we are traveling than did Captain Cook in his sailing vessels.

Leaving Honolulu on Tuesday morning at 5 A.M., we will cross the *International Date Line* in a few hours. The International Date Line is located at the 180th meridian. This meridian is just halfway around the world from the prime meridian, which is at 0° longitude. The prime meridian, you will recall, passes through Greenwich, near London.

It is Tuesday noon when we reach the International Date Line. But as soon as we have crossed the line the day is Wednesday. We have lost a whole calendar day! Suppose that we had been flying east instead of west. If we had reached the date line at noon on Wednesday, it would have been noon on Tuesday as soon as we had crossed the line. We would have gained a whole calendar day. This means that when it is Tuesday on the mainland of the United States or in the Hawaiian Islands, it is Wednesday in all the Pacific lands west of the 180th meridian.

As we proceed on our flight, we reach Wake two hours later. Our next stop is at Guam, on Wednesday evening. When we leave Guam, our plane is bound for Manila. (See the map on the opposite page.)

THE REPUBLIC OF THE PHILIPPINES

The Republic of the Philippines, which became independent soon after the close of World War II, is one of the new nations of the world. The Filipinos received their independence from the United States on July 4, 1946. They chose July 4 as their independence day so that their nation would have the same birth date as the United States has.

More than 7000 islands make up the Philippine Republic. These islands stretch 1000 miles from north to south (see map on pages 360–361). All the islands lie in the tropics.

Luzon, the largest island, is the size of Ohio. South of Luzon is Mindanao, the second-largest island. Mindanao is the size of Indiana. Between these two are many small islands. The total area of the Philippines is equal to that of Arizona. Some of the islands are mountainous and some are flat. There are some volcanoes.

About 27,000,000 persons live in the Philippines. The population is about five times that of New Jersey.

History of the islands

Ferdinand Magellan discovered the Philippines in 1521 and named them for King Philip of Spain. Missionaries from Spain brought the teachings of Christianity to the islands. The natives were Malays and belonged to the Mongolian race. The people became Christians. This republic is today the only Christian nation in Asia. However, some Moslems live in the southern island of Mindanao.

Spain held the Philippines for more than 350 years. In 1898, when Spain lost the Spanish-American War, the islands became a possession of the United States. The United States built schools, roads, and hospitals to modernize the islands. It also helped to educate the Filipinos to govern themselves.

World War II was a hard period for the Filipinos. The Japanese conquered and held the islands from 1942 to 1945. Late in 1944 United States troops landed on the island of Leyte, one of the central islands. Early in 1945 all the Japanese had been driven from the Philippines. Then the plans for independence were carried out.

Farming in the Philippines

More than half of the people of the Philippines engage in farming. The main farming

The Manila Times

This air view of Manila shows the fine harbor, including the breakwater. This city is a center of Pacific trade and travel.

V. G. Miller

The fibers of the abacá plant are dried in the sun before being made into Manila rope. The houses shown in the picture are built on stilts. Can you suggest reasons why they are built in this way?

areas are on the plain of western Luzon and on the flat central islands. Rice is the main crop. In this, the islands are like the near-by mainland of Asia. Rice and fish are the two principal foods of the people. Since the islands are small, no area is far from the sea.

Some Filipino farmers live in villages. Others live on their farms, where their palm-thatched homes of bamboo or wood are set in the middle of their fields. Still others, who live on mountainsides, have houses built on stilts. Tools are stored beneath the house, where pigs and chickens also live.

Crops that are to be exported are taken to the small near-by port. From there they are shipped to Manila on boats that run back and forth among the islands. Coconuts and copra, raw sugar, pineapples, and *abacá,* a plant from which rope is made, are the principal export crops. Abacá is known in the United States as Manila hemp because it is exported from Manila. Actually, most of it is grown on the central islands.

Food crops are used locally or are shipped to the city markets. In addition to rice, these food crops include bananas, beans, corn, peanuts, taro, and sweet potatoes. Copper, gold, and iron ore are mined on the islands. There is also some manufacturing, especially of matting, hats, and rope.

Cities of the Philippines

Manila has more than 1,000,000 inhabitants. The city is situated on Manila Bay. It is twenty-eight miles from the open ocean, but large ships sail through the bay to its docks. Manila is so fine a city that it is sometimes called "The Pearl of the Orient."

Manila manufactures and ships the products that reach it on the inter-island boats. A new government center is being built at Quezón City, a suburb of Manila. This city is named for Manuel Quezón, one of the presidents of the republic.

Davao is a port on the island of Mindanao. Abacá and lumber are the chief products of the southern part of this island.

Do you know—

1. What is the International Date Line?
2. How many Philippine Islands are there?
3. When did the Philippines gain independence?
4. What products do the Philippines export?

5. LIVING IN NEW ZEALAND

New Zealand and Australia are English-speaking nations in the South Pacific. Both countries are self-governing members of the Commonwealth of Nations. Because New Zealand and Australia are on the other side of the globe from the British Isles, the British often speak of them as the "lands down under." You can see why if you hold your school globe so that the British Isles are at the top and then locate New Zealand and Australia. What do you find?

WHAT NEW ZEALAND IS LIKE

The Dominion of New Zealand is made up of two large islands, called North Island and South Island, and a few small ones. The total area is about the same as that of Colorado. New Zealand has a population of more than 2,000,000. About 125,000 of the people are descendants of the native Polynesians. Nearly all of the rest are descendants of the British who settled New Zealand.

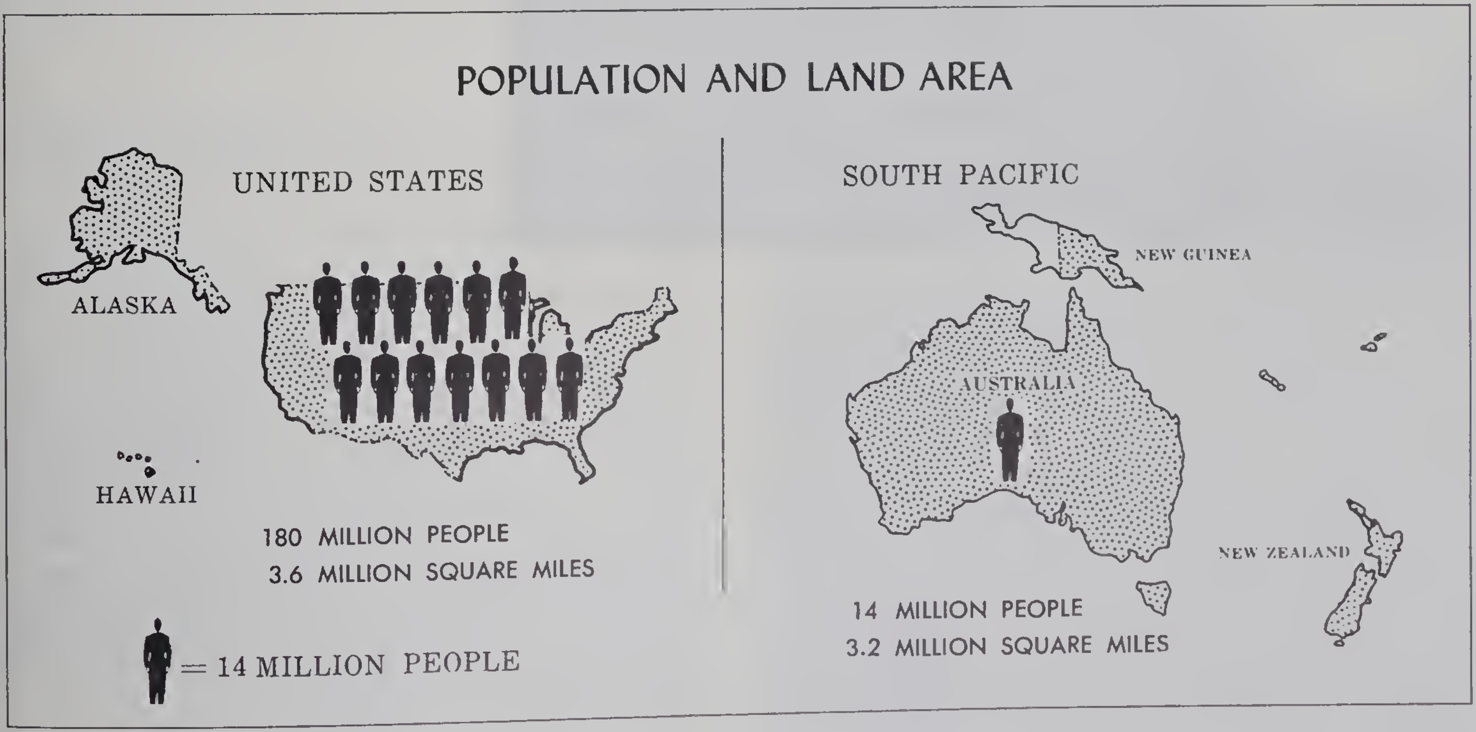
A temperate land

New Zealand lies south of the tropics. Westerly winds blow across the islands. Because these blow across large water areas, they are mild. Except in the high mountains, New Zealand does not get very cold in winter. Summers are mild and pleasant.

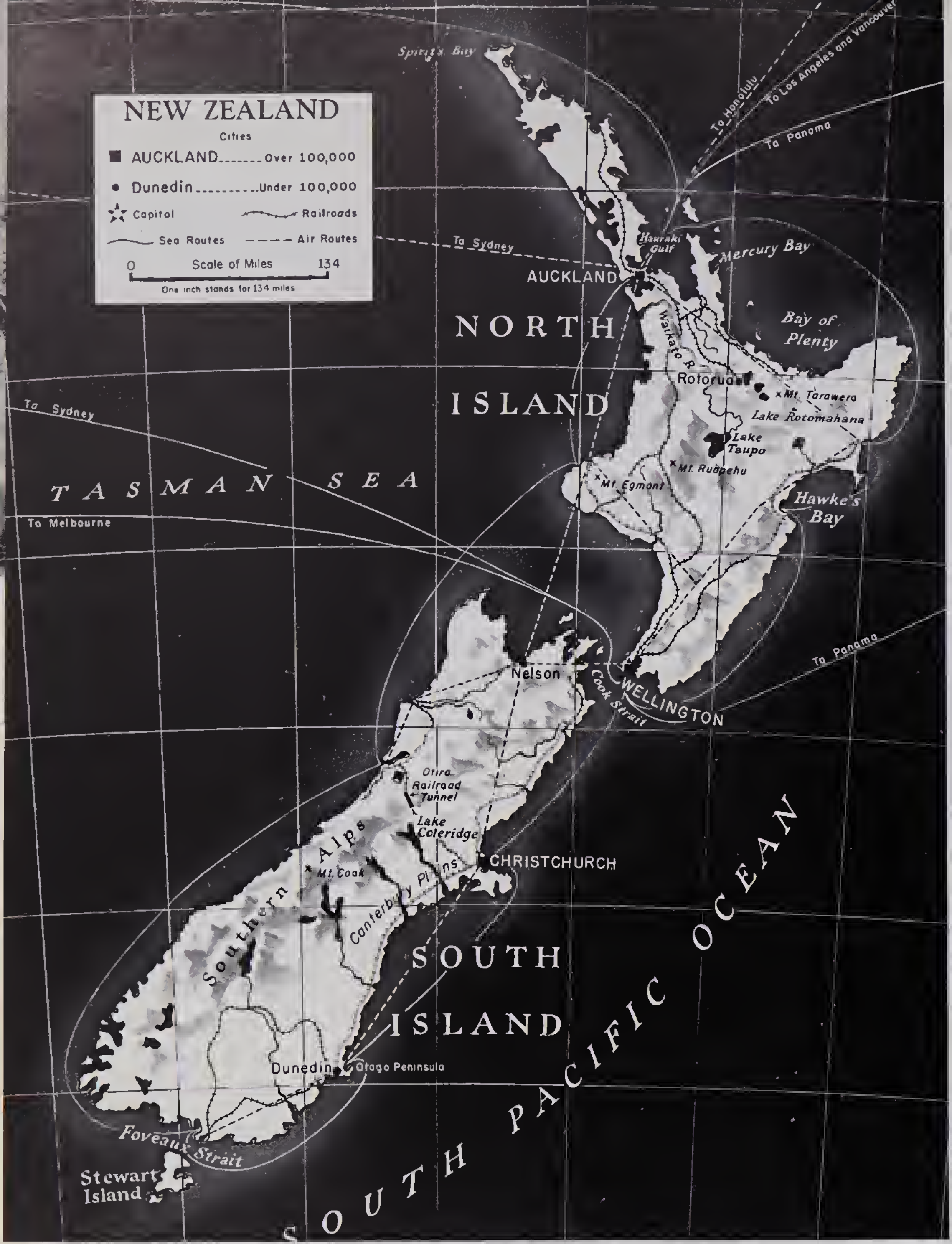
Scenic landscapes

Much of New Zealand is hilly and mountainous. Almost any view includes mountains in the distance. On North Island the mountains rise to almost 10,000 feet above sea level. Mount Egmont, a snow-capped peak on the west coast, has one of the most perfect volcanic cones in the world.

On the western side of South Island are the Southern Alps. Mount Cook, the highest peak, rises more than 12,000 feet above sea level and has several glaciers. The fiords, at the western base of the Alps, remind the traveler of Norway. To the east are lowlands.



POPULATION AND LAND AREA



New Zealand is made up of two large islands and several smaller ones. What are the names of the two large islands? What city is New Zealand's capital? Name the bodies of water that surround the islands. Where are the mountains located? Reread your text and describe the climate.

New Zealand is noted for its fine scenery. It contains glaciers, fresh-water lakes, fiords, rushing rivers, hundreds of waterfalls, and high, craggy mountains. It also has geysers, hot springs, and volcanoes. Its plains and foothills are like the English countryside.

NEW ZEALAND'S PAST

New Zealand was discovered in 1642 by Captain Tasman, who was sailing for the Netherlands. The Tasman Sea (see the map above) was named for its discoverer.

Captain James Cook was the first explorer to map the shores of New Zealand. On his first visit to the Pacific, his ships made a figure-eight trip around the two islands. During this voyage Captain Cook was unable to land because the natives were unfriendly. But on his second voyage, a few years later, he succeeded in landing.

The Maori people

The people whom Tasman, Cook, and other early explorers found in New Zealand were Polynesians, called the Maoris. The Maoris lived mainly in the warmer north half of North Island. Most of them are believed to have arrived in their long boats from tropical islands to the north.

British settlement

Beginning in the early 1800's people from the British Isles began to go to New Zealand to settle there. They were attracted by the good land and the temperate climate. After 1840 the number of settlers greatly increased. They went as families to make permanent homes. Others went when they heard of the discovery of gold there.

The Maoris were not happy at the arrival of the British settlers. They fought bravely to keep their land. But the settlers won and in time took control of New Zealand. The situation was not unlike the Indian wars in North America. In 1900 the total number of Maoris was about 40,000, but their number has increased in recent years. They work on farms in the northern peninsula of North Island or in factories in the city of Auckland.

Farming in New Zealand

The temperate and rainy climate of New Zealand is much like that of the British Isles. Grass and hay grow well in this kind of climate. Nine out of every ten acres of farm land are grasslands. Millions of animals graze on these pastures. With almost 2000 animals to each 100 persons, New Zealand leads the world in the number of animals in proportion to its population.

The people of New Zealand have developed some of the world's finest dairy farms. Most of the farms are on the small plains of North Island. The country south of Auckland and the plains around Mount Egmont are especially fine dairy areas.

Butter, cheese, and condensed and powdered milk are shipped to England from New Zealand. Shipping of butter and cheese to markets halfway around the world was first made possible when refrigerator ships came into use in the 1870's. Today Great Britain depends upon faraway New Zealand, as well as upon near-by Denmark, for much of its butter and cheese.

South Island and the hilly interior of North Island are the great sheep lands. Sheep ranches containing thousands of acres extend into the Alps from the hills of South Island. Refrigerator ships carry lamb and mutton to Britain. Large amounts of wool are also shipped to British factories.

The Canterbury Plains lie on the eastern side of South Island. Most of the crop land of New Zealand is on these plains.

A dairy farmer looks over his cattle in one of New Zealand's rich pasture regions.

New Zealand National Publicity Studios

This aerial view shows the city of Christchurch. Find the city on the map on page 374. Christchurch is an attractive place and has many trees and parks.

New Zealand National Publicity Studios

Cities of New Zealand

New Zealand has four principal cities. City people make their living mainly by handling the products of New Zealand's farms. Some of them load ships with such export products as butter, cheese, condensed and powdered milk, lamb, mutton, beef, wool, hides, and skins. Others work in warehouses where products are stored before they are shipped. Still others work in factories.

Auckland, in the northern part of North Island, is the largest city and chief seaport of New Zealand. It is the size of Newark, New Jersey. Auckland, which is built on a narrow isthmus, has two harbors and two seaports. One is on the Pacific. The other is on the Tasman Sea. The Maoris thought the site of Auckland a fine one, too. When the first Europeans arrived, they found a large Maori settlement there.

Wellington, the capital of New Zealand, is a little smaller than Wichita, Kansas. It is built on a harbor connected with Cook Strait. Wellington is thus at a crossroads, where traffic through the strait crosses the traffic from North Island to South Island.

South Island's chief cities are Christchurch and Dunedin. Christchurch, on the Canterbury Plains, is a few miles from the sea. Lyttleton serves as its seaport. In many ways Christchurch is like an English town. The people are proud of their charming English gardens. The river that flows through the city is called the Avon, which is also the name of a small stream in England. The people row boats on it in the English fashion.

Dunedin has a fine harbor. Because it lies so far south it has been the headquarters of several expeditions to the Antarctic continent. Admiral Byrd and other explorers sailed from Dunedin to the South Pole.

South Island has enough coal for the nation's needs. Water power is so well developed in many areas that both cities and farms are supplied with electricity. New Zealand enjoys a very high standard of living.

Do you know—

1. What is the climate of New Zealand like?
2. How did the British gain New Zealand?
3. How do the New Zealanders make a living?

6. LIVING IN AUSTRALIA

Australia is the world's smallest continent. It is the only inhabited continent which lies entirely in the Southern Hemisphere.

The continent of Australia, with some near-by islands, makes up the Commonwealth of Australia. Canberra is the capital. The area of Australia is about four fifths that of the United States. The population is about 10,000,000 people. More than one million immigrants have moved to this land since World War II.

AUSTRALIA'S PAST

Dutch sea captains had sailed along the tropical northern coast of Australia during the days when the Netherlands was exploring the East Indies. The map on pages 360–361 shows that some of the islands where the Dutch East India Company traded are not far from northern Australia. In 1642 Captain Tasman, the discoverer of New Zealand, sailed south of Australia. But the Dutch did not try to settle in these lands.

In 1770 Captain Cook explored the east coast of Australia. He charted harbors. One of these is called Cooktown. Cook claimed Australia for England.

British settlement

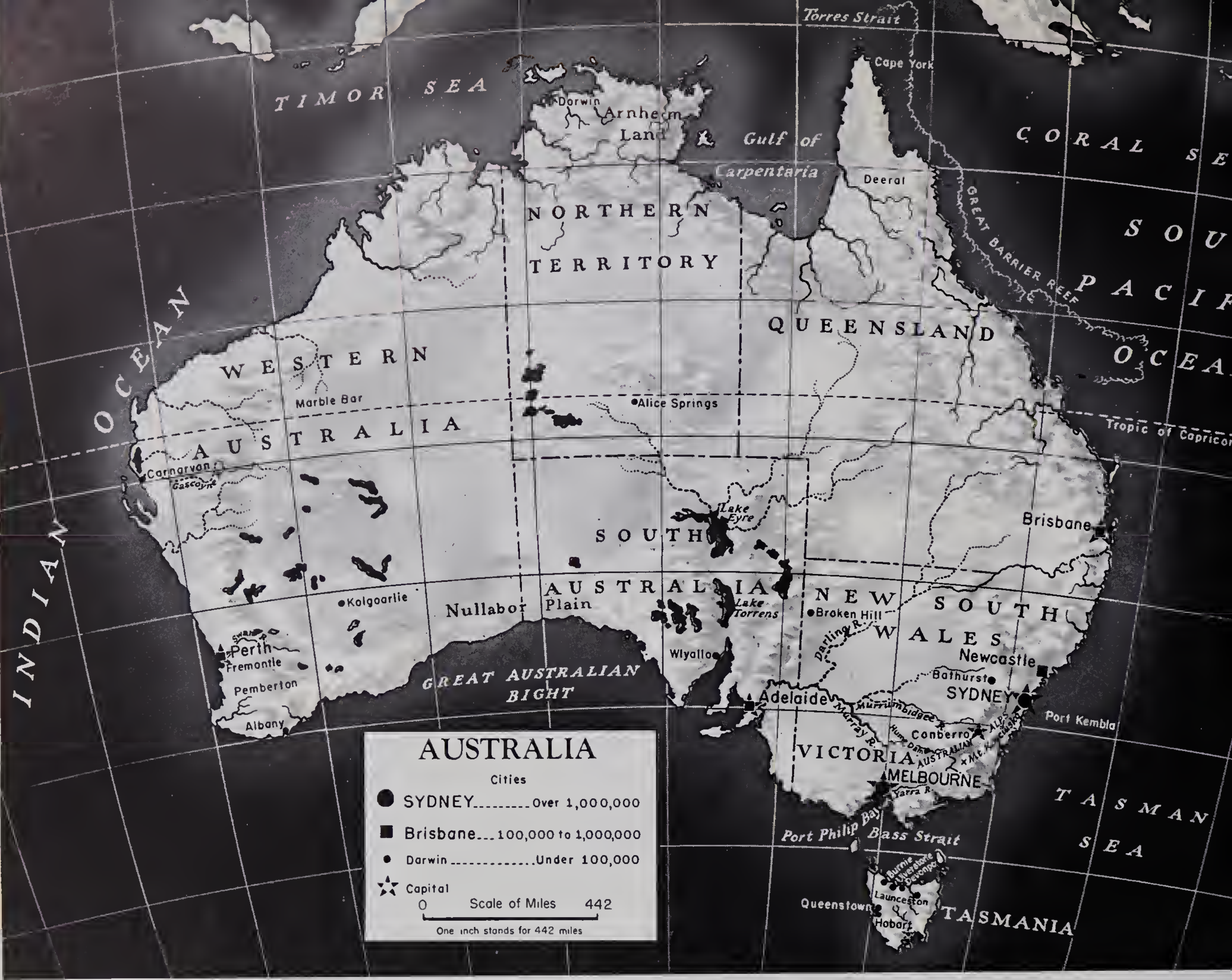
At first, the British were not interested in faraway Australia. However, after the loss of their American colonies, they turned to Australia as a place for settlers. Some Englishmen settled at Botany Bay in 1788. They later moved the colony to another bay nine miles away. This settlement was Sydney. Other early settlements were made at Perth and Adelaide. Find Sydney, Perth, and Adelaide on the map, page 378.

Discovery of gold

Gold was discovered in Australia in 1851, just three years after the finding of gold in California. Thousands of persons went to Australia, most of them hoping to become rich through finding gold. But some started

This view of Brisbane, on the eastern coast of the continent of Australia, shows the city from across the Brisbane River. Brisbane is the capital of the state of Queensland, Australia.

Australian News and Information Bureau



Rivers shown by dotted lines dry up completely in the dry season. Note the cities on the coasts.

farms in order to produce food to sell to the gold miners. Many disappointed gold seekers remained in Australia and settled on farms.

As the news about the good farming land in Australia spread to England, more settlers began to go to the land "down under." Within a period of from ten to fifteen years most of the good farm land of Australia had been claimed. Some individuals obtained very large farms or ranches. A few ranches covered thousands of acres. Even today Australian farms are large.

WHAT AUSTRALIA IS LIKE

Northern Australia lies in that part of the tropics which has a rainy season and a dry season. What is the latitude of this part of the continent? Much of the region is affected by the monsoon winds.

Central and western Australia is a tropical desert. The continent has the second-largest tropical desert in the world. Only the Sahara is larger.

Parts of southern Australia are not in the tropics. It was these temperate lands that interested British settlers. Thus the rapid settling of Australia was in these regions. Even today the tropical north and the desert have few inhabitants. The people live in the temperate areas. Unlike temperate New Zealand, Australia was settled only on the edges of the continent, mainly in the east, the southeast, and the southwest.

Native people

When the first settlers arrived, they found a short, dark people who were living in a primitive way. The primitive people, or *aborigines,* were nomads, without permanent homes. They had no domestic animals except the dog. They did not cultivate the land. Instead they were hunters and seed gatherers. They hunted animals with wooden spears, stone clubs, and with a special kind of weapon, called a boomerang. They used sticks to dig up ants and insects, reptiles, and plant roots for food. They caught fish and trapped animals with nets made of plant fibers or animal tendons. Besides their hunting tools they had few possessions. They wore little clothing.

Today there are about 50,000 aborigines in all of Australia. About half of them live in western Australia. Nearly all the others live in the tropical north, especially on the coast. Many still live as their ancestors did. Others work on some of the large cattle ranches of the north. In the desert, some serve as guides for scientists who are looking for minerals or who are mapping the land.

Native animals

Australia has animals that are different from those found in any other part of the world. These native animals belong to primitive forms of the animal kingdom. Some of them are called *marsupials.* Marsupials are animals which carry their young in a pouch. They are not as strong, as fierce, or as swift as some animals on the other continents. They survived in Australia because they did not have to compete with such animals as lions, tigers, elephants, and buffaloes.

The best known of marsupials is the kangaroo. There are more than seventy kinds of kangaroos. Some are very small. Others are seven or eight feet tall. They are grazing

Australian News and Information Bureau

This Australian is about to throw a boomerang. The weapon, made of wood, will fly through the air, circle about, and return to him. The boomerang was used by Australian natives long before European explorers discovered the continent.

Australian News and Information Bureau

The animals shown in these two pictures are native to Australia. Above, a mother koala bear carries her baby on her back. Below, a mother kangaroo has hers in a pouch.

Publishers' Photo Service

animals and travel in herds. Some live on the plains, others in the mountains and the deserts. Kangaroos were, and still are, the principal food of the natives. In the past the natives killed them with boomerangs. Today they generally use guns. In fleeing from pursuers, kangaroos jump instead of running and can travel thirty miles an hour.

The *wallaby* is a small or medium-sized kangaroo. It lives in rocky country. A wallaby can leap long distances, steering with its tail.

The *koala bear,* the perching opossum, the *jerboa,* and many other marsupials are found in Australia. The koala bear, sometimes seen in zoos, looks like a stuffed toy bear. The jerboa resembles a small rat. It stands on its hind legs and moves forward, as the kangaroo does, by jumping.

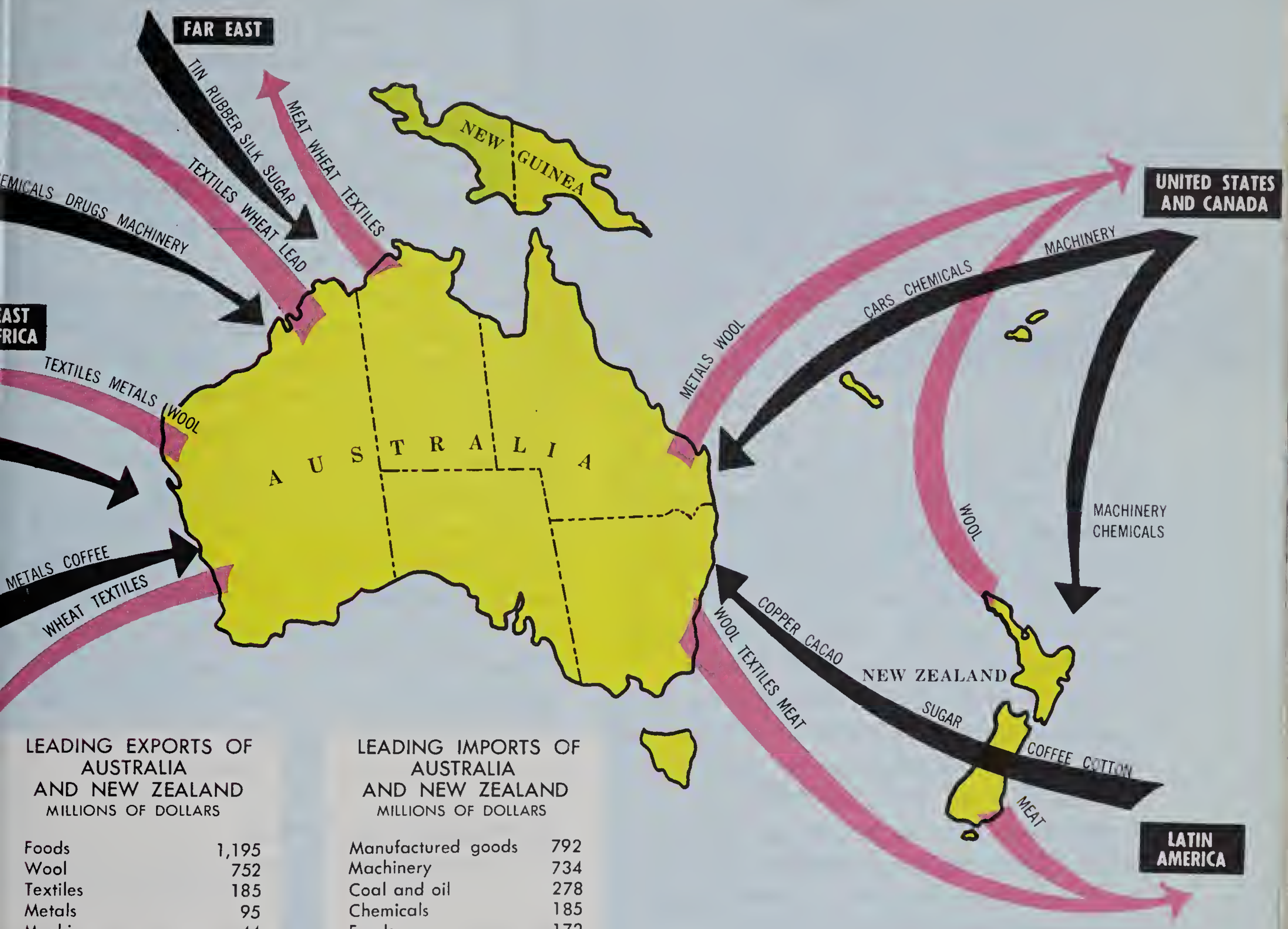
Australia also has wild dogs. They are evidently descended from dogs brought from the East Indies which later escaped. In Australia today, wild dogs are a great enemy of sheepmen and cattlemen because they kill the sheep and cattle just as wolves used to in the United States.

Native plants

The original vegetation of Australia was also different from that of the other continents. The *eucalyptus* is probably the best known of Australia's trees because it has been transplanted to this country. In California the eucalyptus grows very well. Australia has many kinds of eucalyptus trees, just as the United States has many kinds of oaks. Koala bears eat only eucalyptus leaves.

The *wattle* is another tree, or bush, for which Australia is famous. The wattle has bright yellow blossoms, which the Australians like so much that they have made it their national flower.

WORLD TRADE OF AUSTRALIA AND NEW ZEALAND



LEADING EXPORTS OF AUSTRALIA AND NEW ZEALAND
MILLIONS OF DOLLARS

Foods	1,195
Wool	752
Textiles	185
Metals	95
Machinery	44

LEADING IMPORTS OF AUSTRALIA AND NEW ZEALAND
MILLIONS OF DOLLARS

Manufactured goods	792
Machinery	734
Coal and oil	278
Chemicals	185
Foods	172

BASED ON RECENT GOVERNMENT FIGURES

MAKING A LIVING IN AUSTRALIA

Half of the people of Australia live in cities and towns. In spite of its great area, Australia is one of the most urbanized of all the continents.

Australia has six political divisions, or states. In the east, from north to south, are the large states of Queensland and New South Wales. At the southeast corner of the continent is Victoria. On the south coast is the state of South Australia. The western part makes up the large state called Western Australia. South of the continent is the island state of Tasmania.

Australia has two territories. The northern part of the continent, which does not yet have enough people to be organized as a state, is called the Northern Territory. Papua, on the tropical island of New Guinea, is a territory of Australia. Papua also includes some near-by islands. Find New Guinea on the map on pages 360–361.

Ninety-three of every 100 Australians live within 500 miles of the eastern and southeastern coast. Six of every 100 people live in the southwestern part of the continent. If the people were evenly spread throughout Australia, there would be only four persons living in each square mile. One third of the continent, which is desert land, has no permanent inhabitants.

The farming lands

Australia is an important farming nation, but fewer than half of the people live on farms. Sheep and wheat are the main products of the farms. Australia leads the world in the total number of sheep and in the production and export of wool. It is fourth in wheat exports, but not in production. Australian farms, like those of New Zealand, help feed the people of the United Kingdom and supply wool to Britain.

The farming lands of Australia lie in six locations, each of which has a different kind of climate. Find them on the map on page 378, as they are described below.

One farming area is the coast of Queensland north of the city of Brisbane. This coast is a tropical region where products such as sugar cane and bananas are grown.

A second farming area is the coast of New South Wales. In the temperate climate of this region are important dairy lands. They stretch in a narrow belt between the shore and the mountains.

A third farming area is on the eastern and southern coast of Victoria. The climate there is cool and temperate, like that of the British Isles or of New Zealand. Dairy farming and the raising of beef cattle are the chief industries. Temperate Tasmania belongs in this farming region, too, and is noted chiefly for its fine apples.

Australia's leading farming region is the plain of the Murray and Darling river valleys. This plain is northwest of the Australian Alps. It lies away from the coast and is separated from Sydney, Melbourne, and other cities by mountains. From this region most of the sheep, wool, and wheat of the continent come. The climate is like that of the Missouri River valley.

Australia has two farming regions which have a Mediterranean climate. One of these areas is near Adelaide, in South Australia. The other is at the southwestern tip of the continent, around Perth. These regions, with their dry summers and cool, rainy winters, are important for sheep, wool, and wheat.

Between the two regions which have a Mediterranean climate is a desert. This desert is the southern part of a vast, dry central region extending from the south coast almost to the north coast. A railway between Adelaide and Perth crosses the region. This part of the desert is called the Nullarbor Plain, meaning "no-tree" plain.

The Murray-Darling Plain

The leading farm lands of Australia are in the rich plain watered by the Murray, Murrumbidgee, and Darling rivers. The mountains lie to the east of this plain, the desert to the west. Farmers make a living on this plain in three ways. On the east, near the mountains, they grow large quantities of wheat and raise a few sheep. This is the heart of the wheat belt. Wheat is the money crop of these farmers. A little farther away from the mountains farmers raise and sell both wheat and wool. On the drier side of the plain, the farmers can only raise sheep.

Gardens and some farm lands in the Murray-Darling Plain are watered from *artesian wells.* An artesian well is made by boring into

On a large Australian farm modern machinery is used to harvest the grain. A combine cuts the wheat stalks and threshes the grain at the same time.

Australian News and Information Bureau

the earth until water is reached that spurts or flows naturally. The water comes from the rainfall on the mountains. It flows, under pressure, beneath the plains. The Murray-Darling Plain has the largest area of artesian wells in the world. Sheep drink at water troughs filled by water from these artesian wells.

A visit to a sheep station

In Australia a sheep farm is called a sheep station. The fenced fields where the sheep graze are called *paddocks.* The men who work with sheep are called *musterers.*

Let us visit a sheep station in western New South Wales. The land is very flat. The places called "hills" on the station are merely the banks of a small stream.

We approach the station by automobile on a dusty road. The buildings are half-hidden in eucalyptus trees. At the station headquarters we find a group of buildings. A long, low one-story house, with rambling porches, is the home of the owner. This house and the musterers' cottages are clustered around the artesian wells, which furnish water for the people, the sheep, and the large garden. We see also a large shed in which the sheep are sheared, a building where the wool is stored until it is taken to market, and a building for the storage of gasoline. The station could not operate without gasoline.

Australian News and Information Bureau

Lonely cattle stations in Australia depend on radio for news of the outside world. Can you see the tall radio aerial on the building at the right?

AUSTRALIAN INDUSTRIES

Sheep raising has been a leading industry in Australia since the days of the first settlements. The man on horseback, in charge of the sheep, is the musterer.

The modern power station shown in the picture below is in the state of Victoria. It provides electrical power for the fast-growing industries of Australia.

Australian Information Office

Australian News and Information Bureau

Australian News and Information Bureau

At the left is an open-pit copper mine where ore can be scooped up from the earth's surface. Below is a close-up of a piece of the blue-green copper ore.

American Museum of Natural History

The fuel is used for automobiles, trucks, and for the pumps that distribute the water from the wells to the paddocks.

We are fortunate to find a sheep-shearing crew at work. The men of this crew do no other work. They travel from station to station to shear the sheep. Each sheep shearer is so expert that he can shear a sheep in a few minutes' time.

The musterers drive from paddock to paddock each day to look after the sheep. They shoot wild dogs that prey on the sheep. They keep fences in repair. They also poison rabbits. We ask the meaning of this and learn that the rabbit is Australia's greatest pest—worse than the wild dogs.

In the early days, a settler took a crate of rabbits to Australia. Some of the rabbits escaped from their pen. Rabbits are animals that increase very fast. Soon there were millions of rabbits, for the animal had no natural enemies in the continent. The rabbits ate the grass so close to the ground that they destroyed pastures.

To protect the sheepherders something had to be done. So the government began to pay money to persons who would kill rabbits. Rabbit-proof fences have also been built. Gradually the rabbits are being fenced away from the pastures into the desert. There are strict laws in Australia against leaving a gate open carelessly. In spite of all of the efforts of government men and farmers, the rabbit is still a menace to the farmers. On the station that we are visiting, two men spend their whole time hunting and poisoning rabbits.

When it was discovered that the rabbit skins could be used for coats, the Australians began to make a profit from their rabbits. They now ship rabbit skins all over the world. Furriers use the skins in making or lining coats. Hat makers use them in making felt hats. Frozen rabbit meat has also become an export product.

The tropical north

Few Australians live in the north, except along the east coast of Queensland. They grow sugar cane there. In the interior, however, there are some very large cattle ranches. The cattle are marketed at a port in Queensland or at Darwin in the Northern Territory. But most of Australia's beef cattle are raised in the temperate southeast.

Working in the mines

Gold brought many people to Australia, and gold mining is still an important industry. Australia is fifth among the nations in gold output. The leading gold mines are found in Bendigo, in Victoria, and in Kalgoorlie, in Western Australia. Kalgoorlie is a mining center in the desert. Food, building materials, and even water have to be shipped into Kalgoorlie. The water is carried in tank cars on railroad trains.

Broken Hill, on the edge of the desert in western New South Wales, is a large mining center. The mines yield silver, lead, and zinc. The ore goes by train to the coast near Adelaide, then by ship to Tasmania, where hydroelectric power is available for the refining of the ore.

Australia has great supplies of coal. The largest coal fields are on the east coast, near Sydney and Newcastle. Newcastle was built because of the coal found in the region. Coal is shipped by sea from Newcastle to Melbourne and to other port cities. Later, iron ore was brought into Newcastle by sea from the iron mines at Iron Knob, not far from Adelaide. Newcastle then developed an iron-and-steel industry. Iron-ore deposits have recently been found in Queensland.

Ewing Galloway

This air view shows Sydney harbor, one of the finest in the world. There are many beautiful beaches along the water front. The great harbor bridge above connects Sydney with its suburbs.

Working in the forests

Forests are found along the east coast, in the Australian Alps, and in the extreme southwest of the continent. Although the forest area is small, there is enough wood because the continent is sparsely populated.

The Alps have fine forests. The government protects these forests. Streams flowing westward from the Alps to the Murray-Darling Plain irrigate the valleys. In recent years a large irrigation and hydroelectric project has been developed in the Alps in New South Wales. This is called the Snowy Mountain project.

Working in the cities

Half of all Australians live in cities. Two cities, Sydney and Melbourne, contain more than 1,500,000 people each.

The largest cities, except for Newcastle, are the capitals of their states. The capitals lead in manufacturing and in commerce. To explain why, it is necessary to know that until 1901 Australia was not a united nation. Each state governed itself, and each competed with the others. For example, the railroad system of each state led to the capital city and each had a different *gauge*. That is, the space between the rails was different. The gauges changed at the state lines. No through trains could be run, and people had to change cars at the state borders. Since the products of each state went to the state capital for export, this system was very inefficient. Even today Australian railroads have three gauges. On long hauls goods must still be shifted from one train to another.

Australia is now united, but the state capitals still continue to handle most of the products of their states. For example, southwestern New South Wales is not far from Melbourne, in Victoria. But most of the wool and wheat of this region is shipped many miles farther to Sydney for export rather than to Melbourne.

Brisbane is the capital and chief city of Queensland. Sydney, a large seaport on a fine harbor, is the largest city in Australia. It has more than 2,000,000 inhabitants. Brisbane and Sydney are on the Pacific Ocean side.

Melbourne and Adelaide are the chief seaports on the south coast. Melbourne, the capital of Victoria, has 1,777,700 inhabitants. Adelaide is the capital of the state of South Australia.

Hobart is the largest city and the capital of Tasmania. It is also its chief seaport.

Perth, the capital of Western Australia, is situated on the Swan River, ten miles from the Indian Ocean. Large ships stop at a smaller city on the ocean, which serves as Perth's ocean port.

In the Northern Territory, Darwin is the largest settlement. Darwin contains fewer than 10,000 people.

The overseas trade of Australia's seaports is mainly with Great Britain. Wool is cleaned, combed, washed, and graded at the seaport cities. It is then pressed into bales and stored in warehouses until it is exported. Sydney and Melbourne are the chief wool centers because they serve southeastern Australia, where the largest numbers of sheep are raised. The handling of wheat also employs a great many people in the seaports, especially in Sydney, Melbourne, Adelaide, and Perth.

Sydney and Melbourne ship butter and cheese to England. Hobart exports apples. Tasmanian apples are advertised in England as "British to the core." Hobart also ships metals after they have been refined. Other cities ship gold. Brisbane exports beef. Perth is important in the shipping of wheat, wool, and dairy products from the southwest.

Australia is developing its manufacturing rapidly. Newcastle is the center of heavy industry. The other port cities make articles for sale at home. Many factories have been started since World War II to manufacture many of the articles and clothing which were imported from Britain before the war. But Australia still must buy many manufactured products from Great Britain in order to market its wheat and wool there.

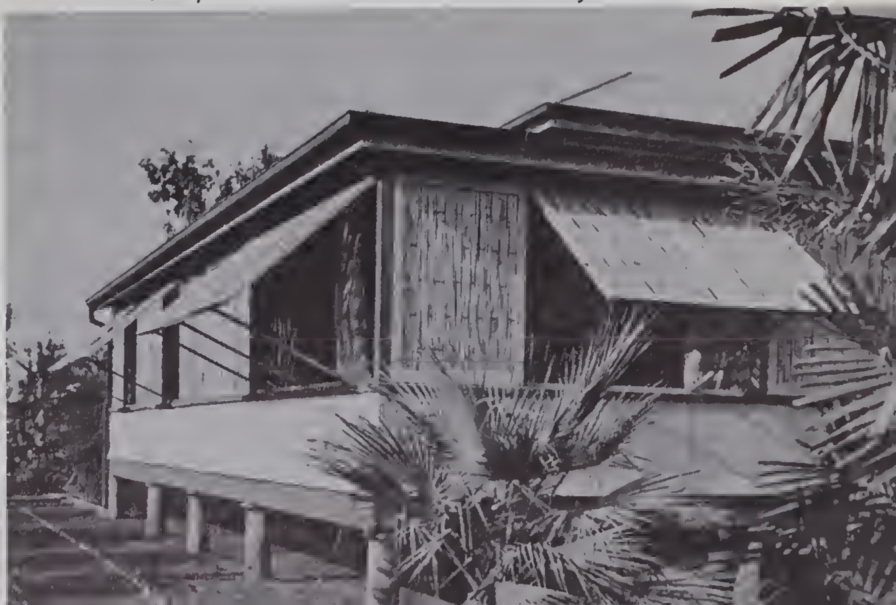
Most of the people of Canberra make their living in government work because Canberra is the capital of Australia. From the map you see that the city is an inland one.

Canberra is a beautiful, new city. When Australia became a nation in 1901, neither Sydney nor Melbourne wanted the other to become the national capital. For this reason, a federal district, like our District of Columbia, was set aside between them. The first government buildings were started at Canberra in 1913, but only since World War II

Both the wood and the oil of eucalyptus trees, shown at the left, are useful products.

The modern home in Darwin shown below is built on hardwood posts to keep out termites.

Photos from the Australian National Publicity Association



Australian Information Office

Melbourne, which is the second largest city in Australia, is viewed here from across the Yarra River. It has many modern buildings and wide streets. Near a rich farming area, the city exports wool, wheat, and other products.

have all the nation's governmental services been centered there.

An outdoor people

Even though half of the people of Australia live in cities and towns, most of them seem to live outdoor lives. They are fond of such sports as horse racing, tennis, polo, soccer, swimming, and the English game of cricket. Tennis is the national game. Australian tennis players have often won world tennis matches. Polo is played in the cities and on the sheep stations. Australia was the friendly host to the nations of the world at the 1956 Olympic games in Melbourne.

Immigration in recent times

One day in 1955 when a man and his wife stepped off a ship in Sydney, they were surprised to be greeted with a celebration in their honor. What was the occasion? The man was the millionth settler to set foot on Australian soil since World War II.

Why have so many people moved to Australia since the war? Because the government has encouraged and helped immigrants to move there. Until World War II, Australia was content with its small population. Ninety-five of every one hundred persons were of British ancestry.

Early in World War II Japan attacked Darwin, on the north coast. The Australians realized their danger. They hurriedly built a road from the southeast across the desert to Darwin so that they could transport troops across the continent. Before this, Darwin could be reached from the southern, settled areas only by air or by sea. The Australians decided, as a result of the war, that they needed more people to develop the continent.

Australia prefers to have British settlers. But the government has encouraged immigration from Germany, the Scandinavian lands, the Netherlands, and Italy. It has received some refugees from central Europe. Languages other than English are now heard in the Australian cities.

Do you know—

1. In what parts of Australia do most of the people live?
2. Who are the aborigines of Australia?
3. Why have so many people moved to Australia in recent years?

7. THE PACIFIC WORLD TODAY

The Pacific world is a very large one. It covers millions of square miles, but it contains far more water than land. The United States was just a group of colonies on the eastern coast of North America when Captain Cook began to explore and map the islands of the Pacific. For many years the Pacific was a world apart from us. The United States had little interest in it except as a broad expanse of water that had to be crossed in order to trade in the Orient.

Many world changes brought the United States into the Pacific. Now we have island steppingstones to Asia, to Australia, and to New Zealand. We also have a treaty of mutual defense, called ANZUS, with Australia and New Zealand. For fifty years we governed the Philippine Islands and helped prepare the Filipinos to govern themselves. Now we have other islands—the Trust Territory of the Pacific—placed in our care by the United Nations. Our new state Hawaii is also in the Pacific. Thus our interest in the Pacific continues. Because of swifter means of transportation, the peoples of the Pacific lands are now our near neighbors.

TO HELP YOU LEARN

Words and Terms to Remember

wattle
paddock
jerboa
gauge
musterer
wallaby
abacá
marsupials
koala bear
eucalyptus
aborigines
artesian well
International Date Line

A Matching Game

Number a paper from 1 through 13. After each number write the word or term from the list above which matches the definition.

1. Animals that carry their young in body pouches
2. An Australian who works with sheep on ranches or stations
3. A fenced field where an Australian farmer grazes his sheep
4. The earliest-known inhabitants of a country
5. A well from which water flows naturally without having to be pumped out of the ground
6. A small Australian animal that looks like a stuffed toy bear
7. A small or medium-sized kangaroo
8. The distance between the rails of a railroad
9. A small Australian animal which looks like a rat and moves forward in jumps like a kangaroo
10. The 180th meridian
11. An Australian tree that also grows well in California
12. A tree or bush with bright yellow blossoms which is Australia's national flower
13. The plant from which Manila rope is made

Finding the Facts

1. What is a Trust Territory? What islands does the United States hold in trust in the Pacific?
2. Why are the Hawaiian Islands important in travel? The Fiji Islands?
3. What does "Polynesia" mean? Where was the original home of the Polynesians?
4. How were the high islands of the Pacific formed? Describe their vegetation.
5. What kinds of vegetation grow on the low islands? What do the people eat?
6. Tell the story of the Philippine Islands from the time of their discovery to the present. How are these islands governed today? How do Filipinos make a living?
7. Why are Australia and New Zealand often called the "lands down under" by the English? Explain your answer by using a globe.
8. What kind of farming is carried on in New Zealand? Where does New Zealand export its farm products?
9. Name two seaports of New Zealand, and tell why each is important.
10. How did the British claim Australia? Why did they use it as a place for settlement?
11. Describe an Australian sheep farm.
12. Why have many people moved to Australia since World War II?

Using Maps

1. Find the International Date Line (the 180th meridian) on the map on page 370 or on the globe. On which side of the line does Hawaii lie? On which side are the Philippine Islands? When the date is September 6 in your city, what is the date in New Zealand? When it is January 10 in Guam, what is the date in Alaska?
2. On the map of the Pacific islands, pages 360–361, find the islands in which the United States has an interest. Which of these are parts of the United States? Which are trust territories of our country?
3. Compare the world-trade map of Australia and New Zealand, page 381, with the world-trade map of the United States and Canada, page 109. What products do the United States and Canada export that Australia and New Zealand import? What do Australia and New Zealand export to Canada and the United States?

Making Geography Real

Astronaut John Glenn, Jr., was up early on that winter day in 1962 when he was to make his journey into space. As the sun rose over Cape Canaveral, he made the final preparations for the flight that would take him into orbit around the earth. Exactly at 9:47 A.M., on February 20, the countdown ended, and the blast-off came. A huge yellow-white flame flashed out from the Atlas-D Missile. Then the rocket took off, carrying the capsule with John Glenn inside it.

Upward and eastward the automatically controlled capsule soared through the blue heavens. Looking down on the Atlantic, Glenn saw the Gulf Stream as a blue river in the ocean.

Across the Atlantic, then across South Africa, John Glenn's capsule flew. Its rate of speed was 17,000 miles per hour. Over the Indian Ocean, John Glenn experienced his first nightfall in space. In the darkness he turned on the tiny flashlights that were attached to the fingers of his gloves and directed their rays toward his maps.

Over Australia he welcomed the lights of the city of Perth, which had been turned on for his benefit. He crossed the South Pacific and saw the sunrise over Hawaii. Flying on through daylight, he found himself over Mexico, heading straight for Cape Canaveral.

Astronaut Glenn was now completing his first orbit around the earth. The capsule was not flying steadily. Should he try for a second orbit? Quickly he decided in the affirmative. Taking over the controls, he flew the capsule himself. Again, and yet again, he circled the earth, flying from day into night and from winter into summer. Four hours and 56 minutes after takeoff John Glenn was safely back on earth again.

The globe and the map showing the International Date Line on page 370 will help you answer these questions about John Glenn's flight into space.

1. What day was it when Astronaut Glenn first experienced night in the capsule?
2. What day was it when he saw the sun rise at Hawaii?
3. How many times in his journeys around the earth did he see the sun set?
4. In what lands was it summer when Glenn flew over them?

Interesting Things to Do

1. Imagine that you were a sailor on Captain Cook's ship in 1778 and that he asked you to write the daily reports in his logbook. What entries would you have made in the log on Cook's first and second visits to Hawaii? Base your report on material from your text and from an encyclopedia.
2. Appoint a member of the class to write to Pan-American World Airways, New York, N.Y., asking for folders about Pan American's routes and schedules across the Pacific Ocean. When you receive the material, the class can plan imaginary trips to various points in the Pacific.
3. There are three main routes a ship can take between Melbourne and London. Use a globe to find these and measure each.
4. Divide the class into three groups. Let each group look up material on one of the following topics and report to the class: (1) New Zealand's role in helping explorers en route to Antarctica. (2) Australia's efforts to attract immigrants. (3) The efforts of the Philippine government to start new industries and build a more prosperous nation.
5. Collect information about the lives and discoveries of Captain Cook and Captain Tasman. Dramatize the stories of the men.
6. Invite to your class one or more persons who have visited the lands discussed in this unit. Their talks, illustrated with souvenirs and pictures, will give you interesting impressions about the Pacific lands.
7. Australia and New Zealand have issued many stamps portraying animals, scenery, products, occupations, historic events, and famous people. Arrange a display of these stamps, and give a talk about them.

Things to Think About

1. The United States freely gave independence to the Philippines. The Netherlands waged a losing war to keep Indonesia. What advantages do you see in our course of action as compared with the experience of the Netherlands in Indonesia?
2. Do you think the population of Australia will ever be as large as the population of the United States? Why, or why not?

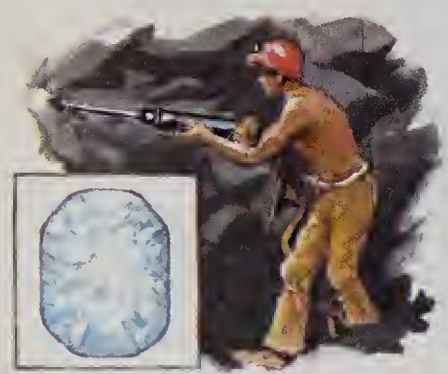
Making a Chart

Compare the United States, Canada, and Australia by filling in the facts called for in the chart below. The reference tables on pages 514–520 will help you.

Country	Area	Population	Leading Minerals	Chief Farm Products
Australia				
Canada				
United States				

Cutting mahogany
in West Africa

Cacao growing
in West Africa



Mining diamonds
in South Africa

Animals grazing
in South Africa

9.

Africa South of the Sahara

THE PEOPLE of Ujiji, a village on the shores of Lake Tanganyika in eastern Africa, had a white visitor. The visitor was a doctor who had come all the way from London. During his stay the villagers had learned to like the doctor and to trust themselves to his care when they were ill.

Now the doctor himself was ill. His left arm, which had been torn by a lion, pained him, and he had contracted a tropical fever. But he continued to care for the sick people of the village. Until the arrival of the doctor, these Africans had never before seen a white man.

One day another white man, accompanied by native guides, appeared in Ujiji. He was an explorer who had come in search of Dr. Livingstone. The villagers were excited at his arrival. They gladly showed him the way to the doctor.

When the traveler reached the doctor's hut, he walked toward the sick man and said, "Dr. Livingstone, I presume?" Thus, in the year 1871, did Henry M. Stanley and Dr. David Livingstone, two great explorers, meet deep in the heart of Africa.

David Livingstone was a medical missionary who went to Africa to help the people there. He traveled fearlessly and safely in places where no European had been before. In the interior of the continent he was the first white man to see the Zambezi River and its great Victoria Falls.

Dr. Livingstone sent reports back to England about the people, the geography, and the vegetation of inner Africa. His reports were printed in newspapers. Persons in many parts of the world read what he wrote and were deeply interested in his scientific discoveries as well as his missionary work.

Then for several years no word from the doctor reached England. People wondered what the trouble was. Their anxious questions were, "Where is Dr. Livingstone? What has happened to him?"

The editor of a New York newspaper decided to send Henry M. Stanley, a famous explorer, to find the doctor. Stanley and his party sailed to Zanzibar, on the Indian Ocean in eastern Africa. From there, he and his men pushed westward toward the area from which Dr. Livingstone's last report had come. Finally they reached Lake Tanganyika and found the doctor.

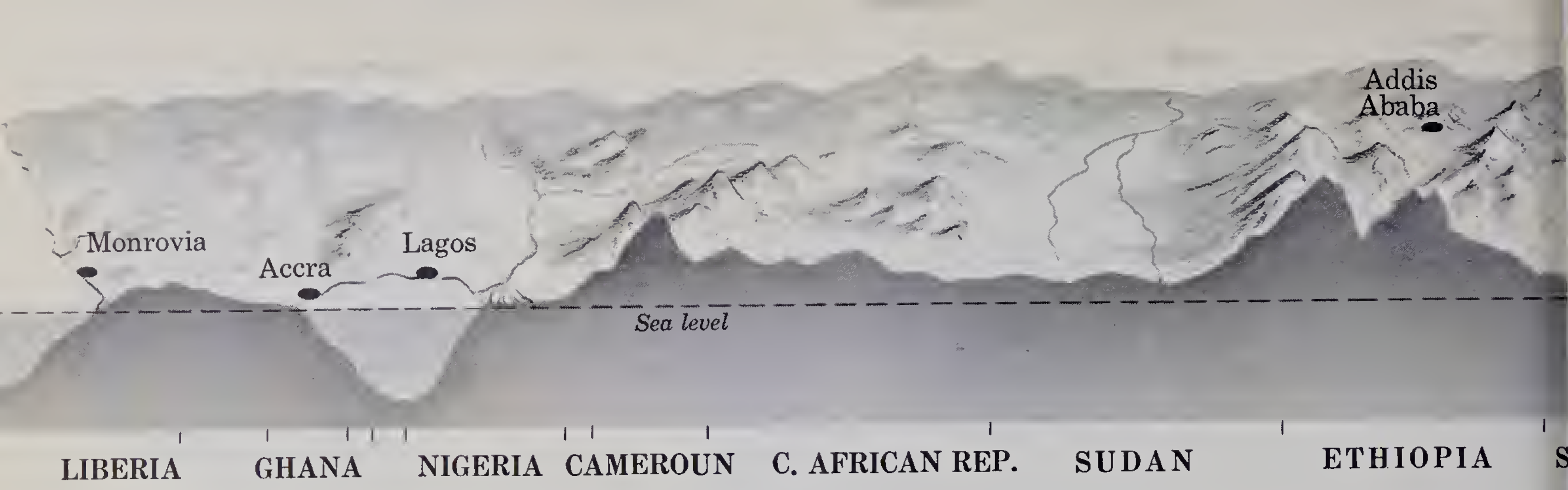
Stanley stayed in Ujiji for four months. But he could not persuade David Livingstone, ill though he was, to leave Africa and the people he had chosen to serve. So Stanley departed, leaving the doctor behind.

Two years later Dr. Livingstone died in a village about five hundred miles south of Ujiji. The devoted natives carried his body to Zanzibar, a distance of one thousand miles. From there his body was sent back to England for burial.

Livingstone and Stanley were Africa's two greatest explorers. Their reports made exciting reading and aroused the interest of Europeans in Africa.

This unit discusses the geography, history, and people of Africa south of the Sahara. It will help you answer these questions:

1. What is the history of Africa?
2. How many natural regions does Africa have? What are they like?
3. What peoples live in Africa south of the Sahara?
4. What countries make up Africa today?
5. What will be the future of Africa?



1. AFRICA'S PAST

Only the Mediterranean Sea separates Africa from southern Europe. But until about one hundred years ago most of Africa was unknown to Europeans.

THE DISCOVERY OF A CONTINENT

One reason why most of Africa was long unknown was that the Sahara, a great desert, lies between North Africa and Central Africa. Another reason was that it was hard to enter the continent from the seacoast. Most of the coast of Africa, as you see from the map on page 397, rises steeply from the ocean. In addition, the rivers have waterfalls near the coast, making it difficult for explorers to sail up them to find out about the interior.

The barrier of the Sahara

The Sahara was a barrier to land travel because it shut Central Africa off from the settled areas along the Mediterranean Sea. Very few people crossed the great desert.

Because the Nile flows from Central Africa northward across the entire desert, the easiest way to cross the Sahara in the past was along the Nile. Traveling along this route, travelers could obtain water. Or they could sail up or down part of the Nile in boats.

The water route to India

In search of trade with the Far East, the Portuguese were the first to try to find a route to India by going around Africa. Sailing along the desert coast of the Sahara, they were the first Europeans to see Africa south of the Sahara.

In the late 1400's Vasco da Gama, a Portuguese, succeeded in sailing around the southern end of Africa. His voyage showed the way to reach India by an all-water route from Europe.

European trading ships were soon using this all-water route to the Far East. These ships, on the way to India, stopped at points on the western coast of Africa for food and water. They also stopped farther south near the Cape of Good Hope (see the map, page 397). Then they sailed around the continent and crossed the Indian Ocean to India.

Names along the route tell the story of these early days. Algoa Bay and Delagoa Bay were two of these stopping points. Algoa means "on the way to Goa." Delagoa means "on the way from Goa." Goa, you may recall, was a Portuguese possession on the peninsula of India until 1961.

Portugal, Great Britain, France, and the Netherlands sent many trading ships around

Africa to India, China, and the East Indies. In 1652 the Dutch founded a colony near the Cape of Good Hope. Settlers, brought by the Dutch East India Company, grew food to supply the sailors on the Dutch vessels which stopped there. These early Dutch settlers were the ancestors of many of the white people of South Africa.

The coming of the Arabs

People from Arabia who were interested in spreading the Moslem religion entered Africa by way of the Red Sea. They overran Egypt and captured Alexandria in 646. They moved southward into part of the Sudan. They also pushed westward through North Africa. The result is that many people in North Africa and many Negroes on the rest of the African continent are Moslems.

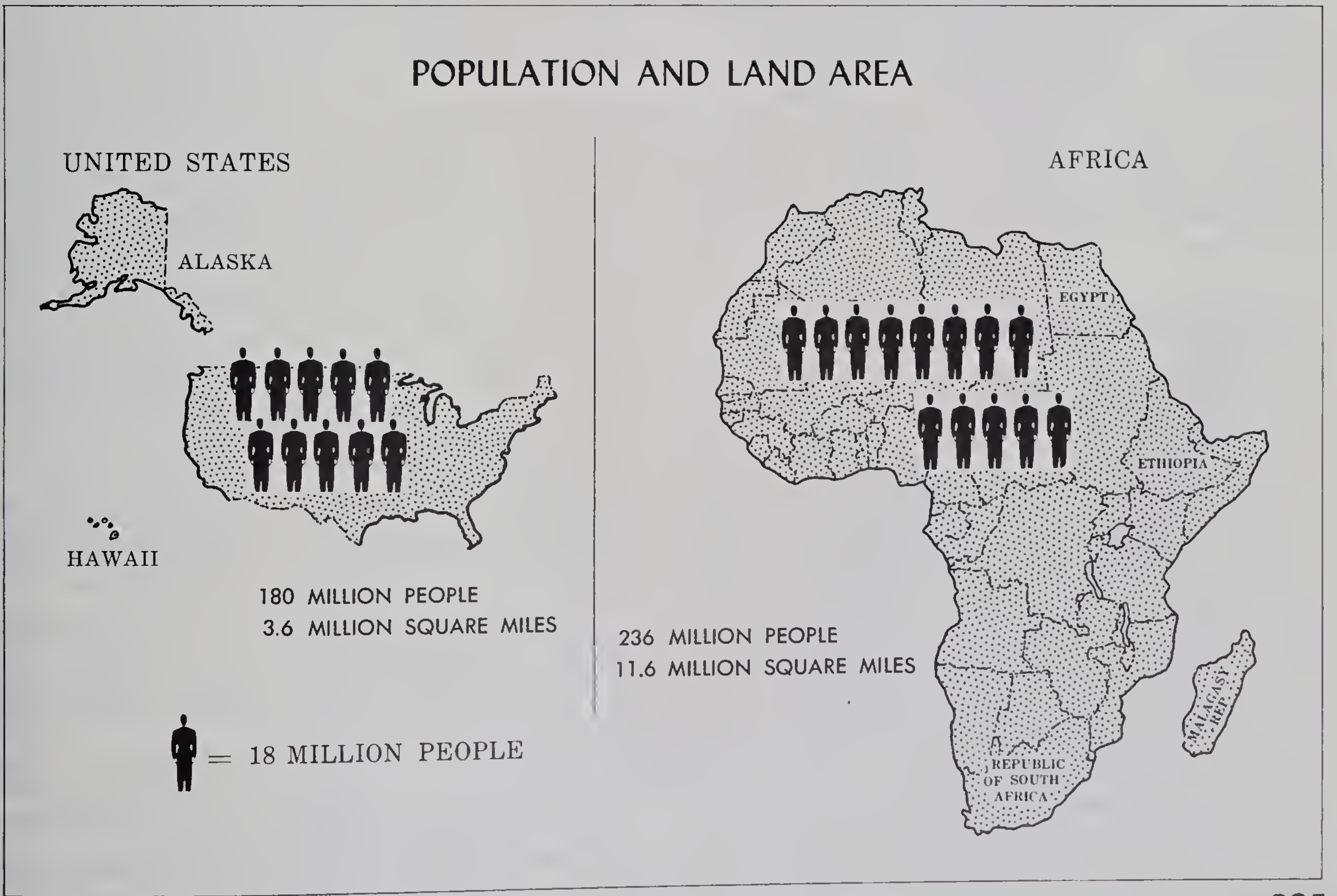
EARLY TRADE WITH AFRICA

For nearly three hundred years the only contacts of Europeans with Africa south of the Sahara were those of trade. The European nations carried on their African trade from trading posts built along the seacoasts. But the traders knew little or nothing about the interior of the continent. The trade extended principally from the area known as the "bulge" to the mouth of the Congo.

European trade in products

In West Africa is a region that was once called the Gold Coast. The name dates from

Does Africa have more or less people than the United States? Compare the population densities.



the earliest days of trade when Europeans found gold in use there. The Negro kings sat on thrones of gold. They wore heavy gold bracelets on their arms and legs. The traders exchanged cloth and various kinds of articles for gold. But this trade soon ended.

Wild rubber was another product of the Congo and West African forests. For a time Europeans bought a good deal of rubber from Africa. To obtain the rubber, the traders had to stay on the African coast and bargain with the tribesmen who brought the rubber from the interior. This took much time. When rubber was discovered in the Amazon Basin, Africa lost its rubber trade. It was easy to send ships up the broad Amazon directly to the forests.

European traders were interested in buying *ivory*. Ivory comes from the tusks of the African elephant. It is a hard, white substance which can be carved into various kinds of ornaments. The elephants were killed for their tusks, and the tusks were brought to the seacoast by the natives. There the traders bought them eagerly. So great was the demand for ivory that the elephants were nearly wiped out.

European trade in slaves

Another source of trade in West Africa was in human beings who were captured and sold into slavery. The slave trade lasted until 1833, when the British put a stop to it.

Why were traders able to obtain slaves for shipment? One reason was that the Negro tribes were always more or less at war with one another. It was the custom in Africa, as it was in many ancient lands, for the victorious tribes to enslave the people they captured. The African tribal leaders were willing to exchange their slaves for products that the traders brought. When they learned that slaves would bring a high price, they set about capturing people from other tribes. Thus European traders were able to obtain large numbers of slaves.

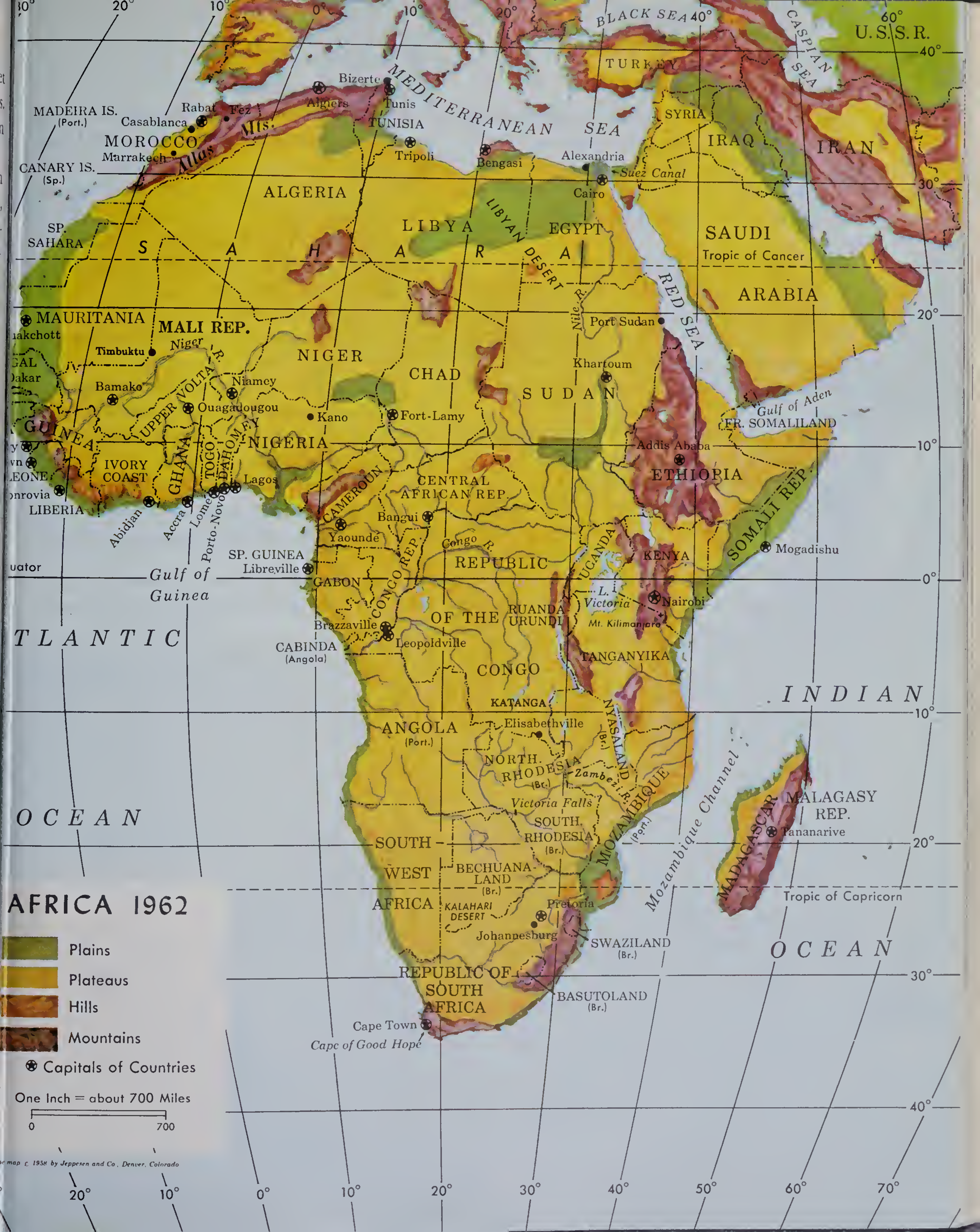
Many of the captured people came from the Sudan. In the grasslands of the Sudan, inland from the coast, there was always trouble between the hunting tribes and the farming tribes. The farming people cleared land and so destroyed game. This angered the hunters. Often an entire farming settlement was overrun by the hunting tribes. The men, women, and children who were captured were marched to the coast and sold.

There was a large market for slaves from 1600 to 1800 because of the rapid settlement of the New World. The sugar planters of Brazil and of the West Indies needed workers. The cacao planters needed workers. The spread of cotton plantations in what is now the southern United States created a demand for workers. Immigrants from Europe at this time did not provide enough workers. Moreover, most Europeans who went to the New World settled in the temperate lands and made their own farms. They did not go to the tropical or subtropical lands in large numbers. Thus the workers from Africa were in great demand on plantations because they were used to working in a tropical climate.

Traders from Arabia

The Arabs traded on the east coast of Africa, which faces the Indian Ocean. Products from this coast reached Arabia and were transported to the Mediterranean Sea. Some of these reached Europe, too, in time. But the Arabs who obtained slaves used them at home.

The Arab traders, like the Europeans, stayed near the seacoast. As a result, the interior remained unknown for many years.



map © 1958 by Jeppesen and Co., Denver, Colorado

CLAIMING THE INTERIOR

A map of Africa even of a hundred years ago showed only the coast lands in detail. But large parts of the map remained blank. It took long years of exploration to fill in the empty places on the map.

Missionaries from Europe

Christian missionaries from Europe went to Africa in early times. They moved inland from the seacoast and established missions. Over the long period of exploration, the missions were built farther and farther inland.

The missionaries taught the people about Christianity. They showed the Africans more healthful ways of living. The careful reports of missionaries added to the world's knowledge of Africa.

Explorers and others

Explorers from western Europe and from the United States helped develop the map of Africa. They followed the rivers of the continent and recorded what they found. Overland journeys were made from river to river and from lake to lake. Dr. Livingstone and Henry M. Stanley helped to solve the mysteries of a large part of inner Africa. From them the world learned about the lakes in the interior and of the sources of the Zambezi, Congo, and Nile rivers.

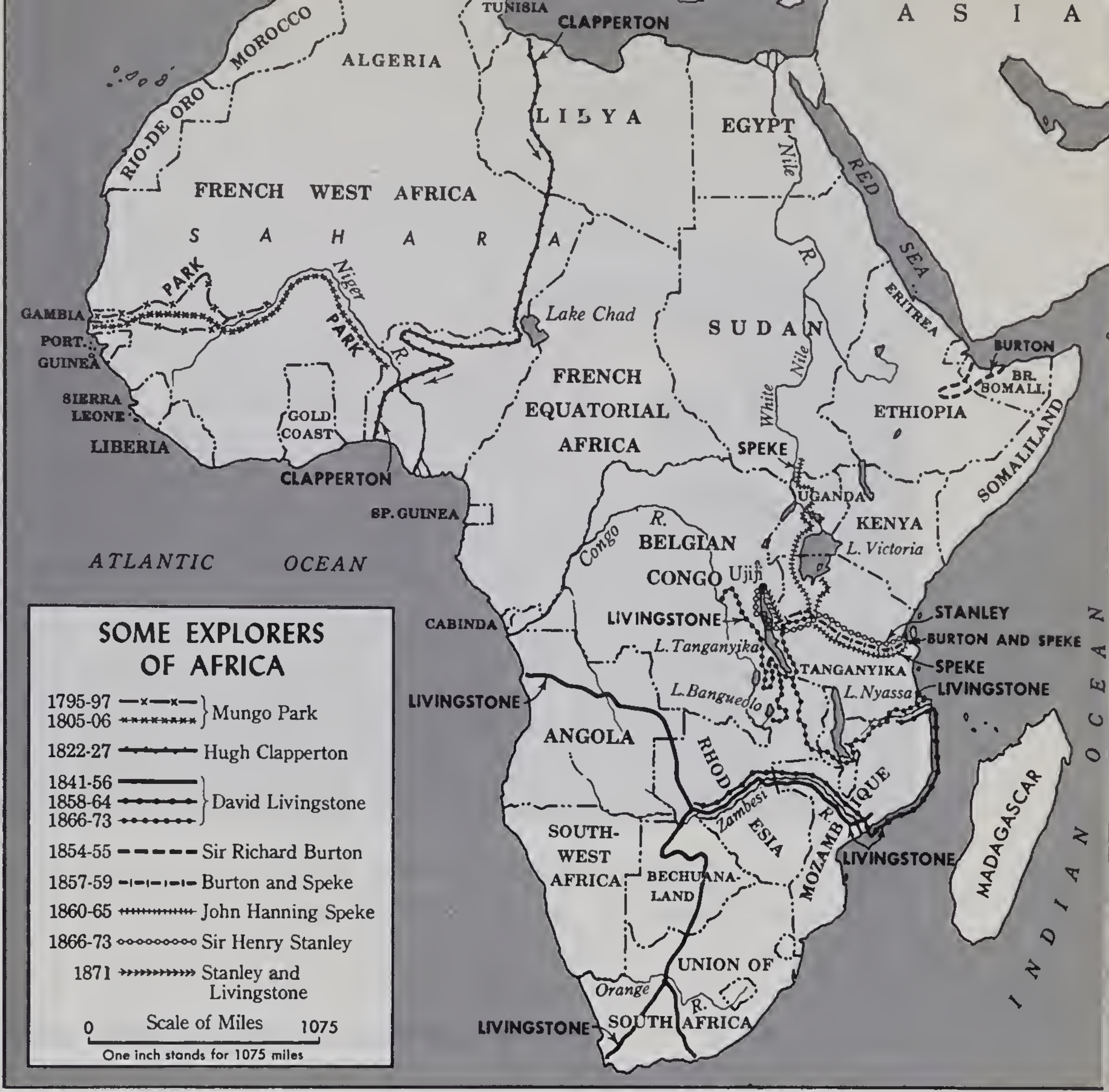
Livingstone's canoe travels on the Zambezi led him to discover one of the world's greatest waterfalls. He called the falls by the name of the English queen, Victoria.

Geographical societies in France, Great Britain, the United States, and other nations sent expeditions to different parts of inner

Many different wild animals feed on the rich grass of the Central African grasslands. Some of Africa's valuable wild animals are growing scarce because of too much hunting in recent years.

British Information Services

The important explorers of Africa followed the routes shown on this map. Trace all the routes and list the most important discoveries made by each explorer. Which explorer do you believe made the greatest discovery? Why? Does this map help you to explain why some parts of the continent were so slow in being settled?



Africa. Books, photographs, and records of these expeditions added to the world's knowledge of the continent.

More information about inner Africa came to the world in the twentieth century, when hunters visited the African grasslands. Theodore Roosevelt was one of these. After serving as President of the United States, he went to East Africa on a hunting expedition. The account of his travels told about places never before seen by outsiders.

Dividing the interior

Important events took place in Africa between 1885 and 1895. During this ten-year period, nearly all of the interior of Africa was claimed by and divided among seven nations of Europe. Most of these matters were settled at a conference held in Berlin, Germany, in 1885. By 1914, when World War I began, all of Africa except two small countries had been claimed. France owned 4,250,000 square miles. Great Britain had 3,500,000. Germany, Italy, Belgium, and Portugal each had about 1,000,000 square miles. Spain had a small share.

Do you know—

1. Why was most of Africa so long unknown to the rest of the world?
2. Why did Arabs enter North Africa?
3. How did explorers finally reach the interior of Africa?
4. What nations claimed Africa in 1914?

FPG

This view of Mount Kilimanjaro was taken from a town in Tanganyika. Also called Kibo, this peak is the highest in Africa and is snow covered all year. Find it on the map on page 397.

2. AFRICA'S NATURAL REGIONS

Africa is the second-largest continent in the world. It is as large as North America and Australia together. The map on page 397 shows that Africa has vast plateaus but few high mountains. The plains of Africa, which lie along the seacoast, are very narrow. Large parts of the continent are made up of plateaus. Eastern Africa has many mountains. Two or three of them are tall enough to be covered with snow all the year.

Because the equator crosses the central part of the continent, nearly all of Africa is in the tropics. Only two parts, the extreme north and the extreme south, are in the temperate regions. These areas have a Mediterranean climate. Between them are rainy, tropical lands and tropical deserts. Africa has a variety of natural regions as we shall see in this unit.

SEVEN LARGE REGIONS

There are seven large natural regions in Africa south of the Sahara. These regions are: (1) the Sudan, an extensive tropical grassland south of the Sahara; (2) the tropical forest lands near the equator; (3) a large grassland area south of the equator; (4) the Kalahari Desert; (5) the grassland known as the veld; (6) the temperate lands of the extreme south; and (7) a tropical upland and mountain area in eastern Africa. Let us see what the natural regions are like.

The Sudan

The region known as the Sudan is a tropical grassland called a *savanna*. A savanna is a region covered with tall, coarse grass. Scrubby bushes and shrubs grow here and there in the savannas. There are trees along the streams and wherever there is water. In a few localities both trees and grass grow. Such a region is called a park savanna because it looks like a large park.

The Sudan lies south of the Sahara and the Libyan Desert. It reaches all the way across Africa from the Atlantic Ocean to the Red Sea, a distance of more than 3500 miles. It extends more than 400 miles from north to south. On the north the Sudan meets the desert. On the south the savannas merge gradually into tropical forests. Because of this change from grassland to forest, the southern part of the Sudan is mainly a park savanna.

The Sudan has two seasons: a wet season, when there are heavy rains, followed by a dry season, with little or no rain. The temperature is hot during the whole year.

The grasses grow abundantly during the wet season. Some kinds reach a height of six to ten feet. They grow up into the limbs of low trees and form a tangled area through which it is hard to travel.

During the dry season, when the grasses become brown and dry, large grass fires often break out. Animals, and even people, are sometimes burned to death by the fires.

Africa has much wildlife. Savannas, such as those in the Sudan, are the homes of millions of animals. Some of the animals eat the grasses. Others kill the grazing animals and eat them. Still others are scavengers, which eat the remains of animals that others have killed. The hyena is a scavenger animal of the Sudan. The large bird called a vulture is also a scavenger.

Sudan is the name of a natural region. It is also the name of a new nation which was formerly part of a large region governed by Britain and Egypt. (See the map on page 397.)

The tropical forests

The tropical forests of Africa lie mainly in the Congo River valley and in West Africa. From the Congo Valley the forests extend westward all along the coast of West Africa. The forests reach to the Atlantic Ocean in Liberia and Sierra Leone. Find these places on the map on page 397.

The dense, tropical forests are the result of heavy rains. Because of the rain and the

South African Tourist Corp.

This photograph was taken in Kruger National Park. The Republic of South Africa protects the wild animals in this park. No hunters are allowed. Africa is the only place in the world today where herds of giraffes still roam wild.

heat the lands of this region are covered by thick forests.

The tropical forests contain many kinds of hardwood trees. Because the trees grow evenly, there are no rings in the wood. One of these hardwood trees is African *mahogany,* a tree with a reddish-colored wood. Another is *ebony,* a tree whose wood is black in color. Still another is *rosewood,* a dark-red wood streaked with black. Mahogany, ebony, and rosewood all have a beautiful, hard texture which causes them to be in great demand for use in furniture. Lumbering is carried on near the rivers and seaports of the West African coast. The logs can easily be exported from there.

Animals like monkeys, apes, many kinds of birds, and snakes live in the trees. Other animals make their home on the shaded ground. Fish, crocodiles, and hippopotamuses live in the rivers.

The *tsetse fly,* an insect somewhat larger than our common housefly, lives in parts of the tropical forests and in some of the park savanna lands. The tsetse fly is a carrier of the disease known as sleeping sickness. Sleeping sickness attacks men and animals. The tsetse fly is a tough creature. No way has yet been found to destroy it. Doctors go to the "fly belts," as they are called, to treat the sick. People who are victims of sleeping sickness often survive, but cattle die within a few days after they catch the disease.

The Rhodesian grasslands

The savanna grasslands of the Southern Hemisphere lie south of the Congo forests. On the map find the two countries called Northern Rhodesia and Southern Rhodesia. The Rhodesian grasslands are much like the savannas of the Sudan. The grasslands cover also the southern part of the Congo area.

The Kalahari Desert

The Kalahari Desert is a tropical desert like the Sahara. It is in the territories of South-West Africa and Bechuanaland.

The Kalahari has more vegetation than the Sahara does. Low bushes and shrubs cover a great deal of the area, but there is too little rain for them to grow well.

The veld, an African prairie

Find the Republic of South Africa on the map, page 397. The interior of this country is a high plateau that is nearly a mile above sea level. The plateau is covered with short grasses much like the prairies of the Missouri River valley. This African prairie is called the *veld.* Although the veld is on top of a plateau, its surface is flat or rolling, and so it looks like a plain. The highest part of the veld has a temperate climate.

Temperate South Africa

The southern tip of Africa lies below the level of the veld. Mountains separate it from the grassy surface of the plateau. This extreme southern part of the continent lies in a temperate region. Much of the area has a Mediterranean climate.

Tropical upland region

From the map on page 397 you see that eastern Africa has many mountains. Nearly all of these mountains rise high enough above the sea to reach into cool air. Two or three of the mountains, which are almost on the equator, are snow covered all year.

Do you know—

1. What natural regions does Africa have?
2. What kind of climate does the Sudan have?
3. How does the Kalahari Desert differ from the Sahara?

Belgian Tourist Bureau

This air view shows an important river port in the Republic of the Congo. Large amounts of minerals and farm products such as palm oil, cotton, rubber, coffee, and cacao are exported.

3. THE PEOPLE AND HOW THEY LIVE

Africa south of the Sahara is the homeland of the Negro peoples of the world. From the edge of the desert southward to the Cape of Good Hope they outnumber the people of all other races. Even the Republic of South Africa, where many Europeans have settled, has many more Negroes than white persons.

THE PEOPLES OF AFRICA

The Negro peoples of Africa belong to several groups. The members of the groups differ in appearance, in language, and in customs. They are in different stages of civilization. Some Negro groups are highly civilized. They practice arts and crafts, work in iron and other metals, and have a well-developed form of government. Other groups or tribes are very primitive.

Within Africa live both the tallest and the shortest people in the world. The Watusi of the Republic of the Congo are the tallest. Their men average nearly seven feet in height. The Pygmies, who live in the eastern Congo forests, are from four feet five inches to four feet eight inches tall.

Number of people

About 184,000,000 people live in Africa south of the Sahara. No one can be sure of the exact number, however, because a census has been taken in only a few places. Tax collectors collect taxes on each house, or hut, and it is upon their reports that the number of people is estimated.

People from other lands

People from other lands, as you know, have settled in Africa. Among these are Europeans and East Indians.

Tropical Africa has only a small white population. The white men are engineers, mining men, traders, and some businessmen.

Three Lions

Men of Ruanda-Urundi work as tailors in the open air. The growing use of machines, even though operated by hand, shows that progress is being made toward modern living in many places in Africa.

The highlands of eastern Africa have some plantations owned by Europeans. Kenya and Tanganyika together have 45,000 white inhabitants. But the native Africans outnumber them greatly. East Indians, from Asia, also outnumber the white persons in Kenya.

The Republic of South Africa, in a temperate region, has a large white population. The number of white persons is 3,000,000, which is about equally divided between English-speaking South Africans and Boers, the people of Dutch ancestry. The white people of South Africa look upon this region as their permanent home. The Europeans in tropical Africa expect to return home.

Negroes in the Republic of South Africa number about 10,000,000, and those of mixed races nearly 1,000,000. About half a million people whose ancestors are from India live in the eastern part of the Republic of South Africa. Many of these Indians are shopkeepers. They own many houses and rent them to natives. Some are doctors and lawyers.

HOW THE PEOPLE LIVE

The people of the different regions gain their living in different ways. Let us consider the ways in which they earn a living.

Living in the forest

The forest peoples are made up of farming groups and of people who live by hunting and fishing. These peoples live in the Congo and in the tropical forests of West Africa.

The farmers live in villages set in clearings in the forest. Each village is a group of huts built close together. The huts, which are made of tough grasses or of wood, are usually round in shape. They are thatched with banana leaves or palm leaves.

The fields of the village are close by. In these fields vegetables are grown. Banana plants dot the fields or are close to them. The heavy rains and high temperatures promote a rapid growth of weeds. It is the job of the women and children to keep the weeds out of the fields. They also gather wild berries and nuts in the forest.

The soil loses its fertility quickly in the tropics. Warm rains dissolve the plant foods in the soil and carry them away. After four or five years the land produces poor crops, and it is hard to keep the weeds out. The tribe is prepared for this. The men have killed forest trees near by. Sunshine is reaching the ground. The farmers then move to the new area to plant their crops. Weeds spring up in the old fields. Then vines and bushes grow. The tangle of bushes, weeds, small trees, and vines makes a jungle. After awhile the trees grow tall and shade the ground. Now the area is a forest again.

This process of moving to new fields is repeated again and again. It is called *shifting cultivation.* Shifting cultivation would not be necessary if fertilizers were used to supply the plant foods that crops need.

There are plantations near the coast of West Africa. Cacao, rubber, palm nuts, and other products are grown on these plantations. An oil used in making soap is pressed from the palm nut.

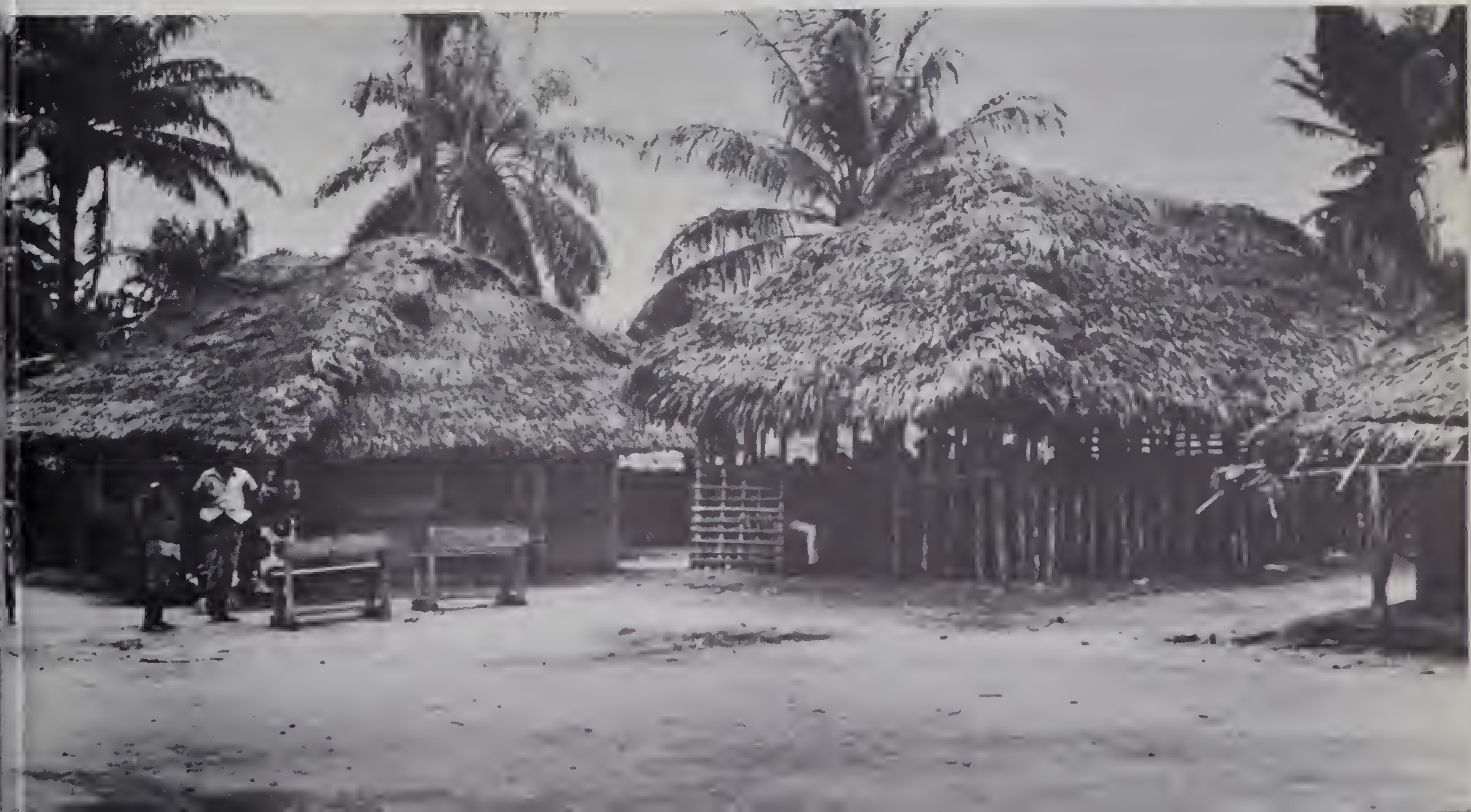
Some people make a living working in the tropical forests. Near the coast, trees are cut down, and the lumber is exported to the United States and to Europe.

Living in the grasslands

Life in the grasslands of Sudan, of eastern Africa, and of Rhodesia is much the same for the natives of each area. The people of this area live very differently from those of the forests. They have larger fields, and they own grazing animals. The wealth of

This African village is near the Congo River and close to the equator. Note the thatched roofs of the houses and the open walls to give coolness. The people in this area raise tropical crops.

National Congo Tourist Bureau—Brussels



an individual or a tribe is counted by the number of animals possessed.

The grassland tribes live in villages. Some of these villages are large and have sun-dried brick walls around them. The villages are built near a river or a water hole. Some of the homes are of brick. Others are huts of grasses and wood. The villagers practice shifting cultivation.

Different kinds of vegetables and dry-land grains, such as millets, are grown. Many watermelons are raised. The watermelon is native to Africa. The seeds of the first watermelons grown in the United States were brought from the Sudan. Cotton and peanuts are grown in the upper Niger River valley.

Some of the cattle of the Sudan have such long horns that they resemble the early Texas longhorns. When lions or other wild jungle beasts become so numerous that they attack the herds, a counterattack is organized. The men form a large circle around the lion. Slowly they move forward until they surround the beast. Then one of the hunters throws a spear and kills it.

The grassland tribes also hunt. Millions of wild animals live on the savannas. Hunting is especially important during the dry season when farmers are not raising crops.

Do you know—

1. How many people live in Africa south of the Sahara?
2. How do Africans in the forest areas make a living?
3. How do the people of the grasslands make a living?
4. When do these tribes go hunting? Why?

Words and Terms to Remember

ivory
savanna
veld
ebony
rosewood
mahogany
shifting cultivation
tsetse fly

A Matching Game

Number a paper from 1 through 8. After each number write the word or term from the list above which matches the definition.

1. An insect of Central and South Africa which by its bite infects people with the sleeping sickness disease
2. A valuable hardwood, native to the tropics, that is reddish-brown or yellow in color
3. The practice of abandoning fields and moving to new fields when the soil is worn out
4. A reddish-colored wood streaked with black valued for use in making fine furniture
5. The hard, white, fine-grained substance of which elephant tusks are formed
6. A tropical or subtropical grassland region containing scattered trees and scrubby bushes
7. A hard, heavy wood that is very dark or black in color
8. In South Africa, open grassy country on which grow a few scattered shrubs and trees

Eastern Nigeria Information Service

This picture shows the opening of a bridge in Nigeria. This nation, recently given its freedom by Great Britain, is beginning to develop its natural resources and its means of transportation.

4. THE COUNTRIES OF AFRICA

The countries of Africa are shown on the map on page 397. Follow the map as we learn the names. Most of the countries now govern themselves. But some are either colonies or protectorates of European nations. Let us consider the countries, beginning with West Africa, moving across the equatorial regions, to East Africa, to South-Central Africa and then to South Africa.

WEST AFRICA

The area known as West Africa borders Algeria and a part of Libya on the north. It extends eastward about halfway across the continent.

From north to south, West Africa reaches from the Sahara, through the grasslands of the Sudan, and includes the tropical forests in the south.

Most of the West African countries shown on the map are member nations of the French Community. In 1958 most of the French colonies in Africa voted to become republics associated with France. But the former French colony of Guinea chose to cut its ties with France and became independent. Some of the West African countries are associated with Great Britain or the Commonwealth. Portugal owns an overseas province, called Portuguese Guinea.

The French Community in West Africa

The lands of the French Community, which were once French colonies, voted to become member republics of the community in 1958. You will find their names on the map on page 397. These lands have good means of transportation. From Dakar, on the Atlantic Ocean, a railroad leads to the Senegal River. Near the source of this river another railroad connects with the Niger River. Boats ply the waters of the Niger to the city of Timbuktu and beyond. Thus the river provides a fine route from west to east through the

United Nations Photo

This is a view of Kano, Nigeria, taken from one of the minarets of the mosque. Houses built of clay or mud are cool in this hot climate. The flat roofs give the people a place to sit and enjoy the cool evening breezes.

Sudan. Products, such as cotton and peanuts, are brought to the seaport of Dakar and then are shipped to France.

The British lands

Sierra Leone was once a British-owned land of West Africa. Many ships call at its capital city of Freetown. It became an independent nation in 1961.

Nigeria, which was once Britain's largest colony in Africa, received its freedom in 1960. Nigeria is as large as Texas and Kansas together. It has nearly 35,000,000 inhabitants. Only a few thousand of its people are white.

Nigeria was formed in 1914, when the British united several regions. It gets its name from the Niger River, which flows for 700 miles through the country. The capital of Nigeria is Lagos.

Nigeria has thick forests and a hot climate. The cacao tree grows so well in this warm, steamy land that chocolate is Nigeria's leading product. Oil from the oil palm is also an important export from Nigeria. Cotton is grown in the north.

Nigeria is one of the most densely populated lands of Africa south of the Sahara. There are 200 or more people on each square mile in large parts of these lands. For this reason there is no space in which to practice shifting cultivation. The natives of these lands have learned to use fertilizers.

Liberia, an old republic

Liberia is the size of Tennessee and has a population almost as large as Nebraska. It is entirely in the tropical forest region.

Liberia was founded to establish in their original homeland a colony for freed American slaves. The name means "free" country. Liberia became independent in 1847. About 20,000 of the 1,250,000 people are descended from freed slaves who were taken to Liberia from the United States.

English is the official language of Liberia. The capital, Monrovia, is named for President Monroe.

Liberia is under the protection of the United States. This prevents any other nation from trying to take its territory. Liberia followed the United States in declaring war on Germany in World War I. It granted air bases for our country's use in World War II.

Several United States companies now operate mines and plantations in Liberia. Iron ore from Liberian mines is shipped to steel mills on the east coast of the United States. The largest plantation, of 1,000,000 acres, belongs to a United States rubber company.

The Republic of Ghana

Another free Negro republic in West Africa is Ghana. Ghana was called the Gold Coast for hundreds of years because the early explorers found gold there. It became a British colony in 1871. Under Great Britain's guidance Ghana became independent in 1957. It is a member of the Commonwealth.

Ghana is a little smaller than Oregon and has a population of 6,691,000. It has a tropical climate, with heavy rainfall and high temperatures. Its chief product is cacao. It also mines gold and manganese.

EQUATORIAL AFRICA

Equatorial Africa is now made up of many new nations. The Congo and the Niger rivers flow through the region.

The French Community of Nations

Fourteen countries in Equatorial Africa received independence from France between World War II and 1962. They are Cameroun, Chad, Central African Republic, Congo Republic, Dahomey, Gabon, Guinea, Ivory Coast, Mali, Mauritania, Niger, Senegal, Togo, and Upper Volta. Upon receiving independence, all except Guinea chose to belong to the French Community.

The Republic of the Congo

The Republic of the Congo, which has an area more than three times as large as Texas, is a rich land. About 13,800,000 people inhabit this region. It received independence from Belgium in 1960.

The Congo is a land of contrasts. Forest tribes live in much of the area. Many people hunt and fish. Yet the cities of Leopoldville, the capital, and Elisabethville are very modern. They have broad streets and air-conditioned apartments and offices.

Elisabethville is the chief city of the rich mining province called the Katanga. The Katanga lies in the very southeast of the Congo. Copper is the leading mineral. But uranium ore, chromium, cobalt, tin, iron, and gold are mined. The minerals are exported from ports in Angola and Mozambique. Soon after the Belgian Congo became

This Moslem chief in Ghana is wearing the native costume of his tribe. Ghana received its independence from Great Britain in 1957.

British Information Services

United Nations Photo

This copper-smelting plant is in Elisabethville, in the rich Katanga region of the Congo. Every year the Katanga mines produce about half as much copper as does the United States.

free, some native leaders announced that Katanga would secede and set up its own government. Later, the United Nations took steps to help the young republic set up a firm government over its entire territory.

EAST AFRICA

There are five independent nations in East Africa: Sudan, Ethiopia, Tanganyika, the republic of Somali, and Uganda. Also in East Africa are Kenya, a British territory with local self-government, and the French colony of Somaliland.

The Sudan republic

In 1956 a republic called Sudan was welcomed into the United Nations and into the world family of nations. From 1900 to 1951 the country was ruled jointly by Egypt and Great Britain. Between 1951 and 1956 Egypt officially had control of the region. But the actual control remained in British hands until 1956, when the country became free.

The Republic of Sudan has about 11,000,000 people. It covers nearly 1,000,000 square miles and lies in two natural regions. The north is a desert land. The south is in the tropical grasslands of the large natural region known as the Sudan. The Nile River flows through the country. Khartoum, the capital, stands at the place where the White and the Blue Niles join. Cotton is the leading crop.

The kingdom of Ethiopia

Ethiopia, which is as large as Texas and California together, is a mountainous land. The 21,800,000 people are Christians. They form a kind of Christian island, surrounded by a sea of Moslems. Ethiopia is ruled by an emperor. Addis Ababa, which is 8000 feet above sea level, is the capital. The city has about 500,000 people.

For many years Italy looked at Ethiopia with envious eyes as a land to colonize. During the 1890's Italian armies tried to conquer the country but were driven back by the Ethiopians. However, in 1935, Italy sent other and more powerful armies into the land and conquered it. But Italy's victory was short-lived. Italy was defeated in World War II, and Ethiopia regained its independence.

Ethiopia is still a backward land. It has few schools and no good roads. Its only railroad connects the capital with the Red Sea.

Somali

The Republic of Somali, which is made up of the former British colony of Somaliland and the former Italian trust territory of Somalia, became independent in 1960. It has a population of about 1,990,000. Its capital is Mogadishu. Most of the people are farmers, who raise sugar, bananas, and maize.

Tanganyika

This nation is a former trust territory of Great Britain. It gained its independence in 1961. Many nations have controlled Tanganyika in the past. It was in this part of Africa that Stanley found Livingstone.

The largest city and the capital of Tanganyika is Dar es Salaam. From this leading port copra, tea, peanuts, and rice are exported. The nation has important diamond and gold mines and also some coal and iron.

Uganda and Kenya

Uganda, which received independence from Britain in 1962, lies on the equator. It has a population of 5,000,000. Most of its people earn a living by farming. The capital of Uganda is Entebbe.

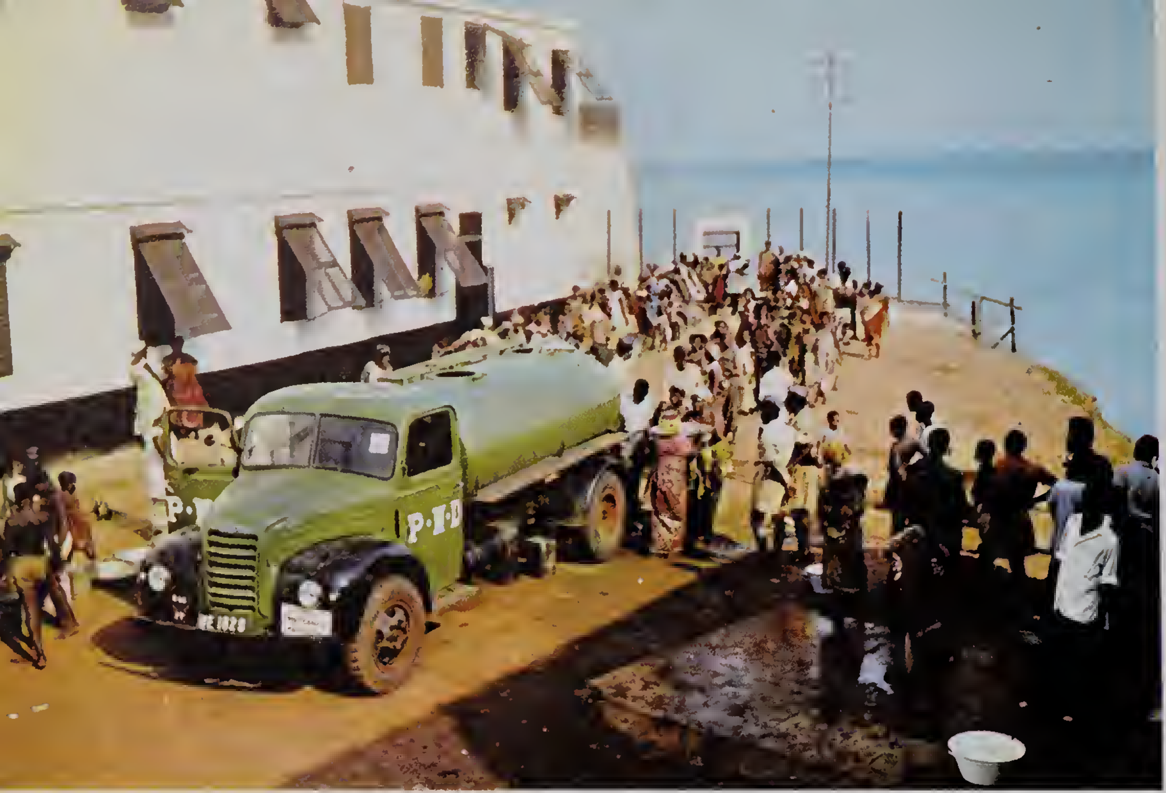
Bordering Uganda on the east is Kenya, a British colony which is on its way to independence. Its people number about 5,406,000. Kenya's capital is Nairobi.

Lake Victoria, the second largest lake in the world, touches both Kenya and Uganda. Find this lake on the map on page 397.

East Africa also has many other large lakes. The lakes lie in valleys between the mountains. The valleys were formed by earthquakes. After the valleys were formed, the heavy rains in East Africa helped to fill the valleys with water, making them into lakes.

A young shepherd boy in the dry highland region of Tanganyika holds in his arms a lamb from the flock of sheep under his care.

E. Johnson from Monkmeyer



Charles May from Shostal

THREE AFRICAN SCENES

During the dry season in Ghana people line up, as shown on the left, to get water from water trucks. A long dry season comes to Ghana in December and lasts through February.

Martin S. Klein from Shostal

The harbor on the left is a seaport in Tanganyika. It has a narrow entrance and is well sheltered. The city, which is the capital of Tanganyika, is called Dar es Salaam. These words mean "Harbor of Peace."

Herbert Lanks from Shostal

Victoria Falls is on the Zambezi River on the border between Northern and Southern Rhodesia.

SOUTH-CENTRAL AFRICA

The countries of South-Central Africa are in the savannas, or Rhodesian grasslands. Portugal owns both the east and the west coasts of this part of Africa. It considers its African lands as overseas provinces. The British own much of the interior of this region, including Bechuanaland.

The Portuguese overseas provinces

Portugal, as you know, held trading posts along the coasts of South-Central Africa in early times. The colonies grew inland when Africa was divided during the period from 1885 to 1895. As you see from the map, a large part of Mozambique contains lowlands along the Indian Ocean. These are forested areas rather than grasslands. Angola and Mozambique, along with Portuguese Guinea (see page 397) in West Africa, are provinces of Portugal.

The ports of Angola and of Mozambique are important because railroads lead from them to the interior British lands and to the mining regions in the Congo. Many minerals are shipped from these ports.

The two Rhodesias

Cecil Rhodes was an Englishman who went to southern Africa in 1869 when he was just a boy. He made a large fortune there. His dream was to build a railroad from the Cape of Good Hope northward to Cairo, Egypt. Under his leadership the lands north of what was then called the Union of South Africa became British territories. Northern and Southern Rhodesia are named for him.

Rhodes did not live to see a railway built across the continent. Such a railroad will probably never be built, because airplanes now carry the passengers who wish to travel across Africa. But a fine railroad connects the

Satour

This is a farm in the fertile Cape of Good Hope province of South Africa. The climate of the Cape of Good Hope is good for the growing of grapes, and the region is famous for its vineyards. Wine and grapes are both leading exports of South Africa.

Rhodesias with South Africa. Cecil Rhodes is best remembered today because he left money for *scholarships,* for good students from the United States, Germany, and the British dominions to study in England. Through such study Rhodes hoped that people of the United States and England, as English-speaking nations, would understand each other better and work together.

In 1953 Britain combined Northern and Southern Rhodesia and Nyasaland into a *federation,* or union. In the federation each country has its own home government. But the minerals of Northern Rhodesia, the fuels of Southern Rhodesia, and the labor force of Nyasaland are brought together. The result is that industrial production and the standards of living have been greatly improved. The capital of the federation is Salisbury.

SOUTH AFRICA

South Africa lies in the temperate lands near the Cape of Good Hope and on the temperate grasslands of the veld. This area of Africa is a part of the Republic of South Africa. This republic surrounds two small British protectorates named Basutoland and Swaziland. These regions are reserved for Negroes. Other races cannot own land there.

The Republic of South Africa

This nation was once a self-governing dominion of the Commonwealth. It was called the Union of South Africa at that time. But in 1961 it withdrew from the Commonwealth and became the Republic of South Africa.

The nation is almost twice as large as Texas and has about as many people as California. There are two capitals. The governing officials live in Pretoria. But the legislature, which is like our Congress, meets in Cape Town. Johannesburg, on the veld, has more than 1,000,000 people.

This republic is composed of four states: Cape of Good Hope, Natal, Orange Free State, and Transvaal. English and *Afrikaans* are both official languages in South Africa. Afrikaans, which is based on Dutch, is spoken in part of Cape of Good Hope, in Orange Free State, and in Transvaal. English is spoken in most of Cape of Good Hope and in Natal. The country people of the veld speak Afrikaans, but the city people in such cities as Johannesburg usually speak English. Let us see how the use of the two languages came about.

The Dutch East India Company, as we know, established a settlement at Cape Town in 1652. Soon other Dutch settlers followed. This happened about the same time that the Dutch were settling New York and the Hudson River valley. The settlers were attracted to South Africa because it was not in the tropics. The people of Dutch descent came to be called Boers, a Dutch word which means "farmers." Their language, much like that of the Netherlands, is called Afrikaans.

English settlers began coming to the Cape about one hundred and fifty years ago. When the English arrived in large numbers, many Boers moved inland to the veld. They traveled in covered wagons, much like those used in the westward movement in the United States. They settled on the extensive prairie at the top of the plateau. In time, two states were formed—Orange Free State, between the Orange and the Vaal rivers, and Transvaal, which means "across the Vaal."

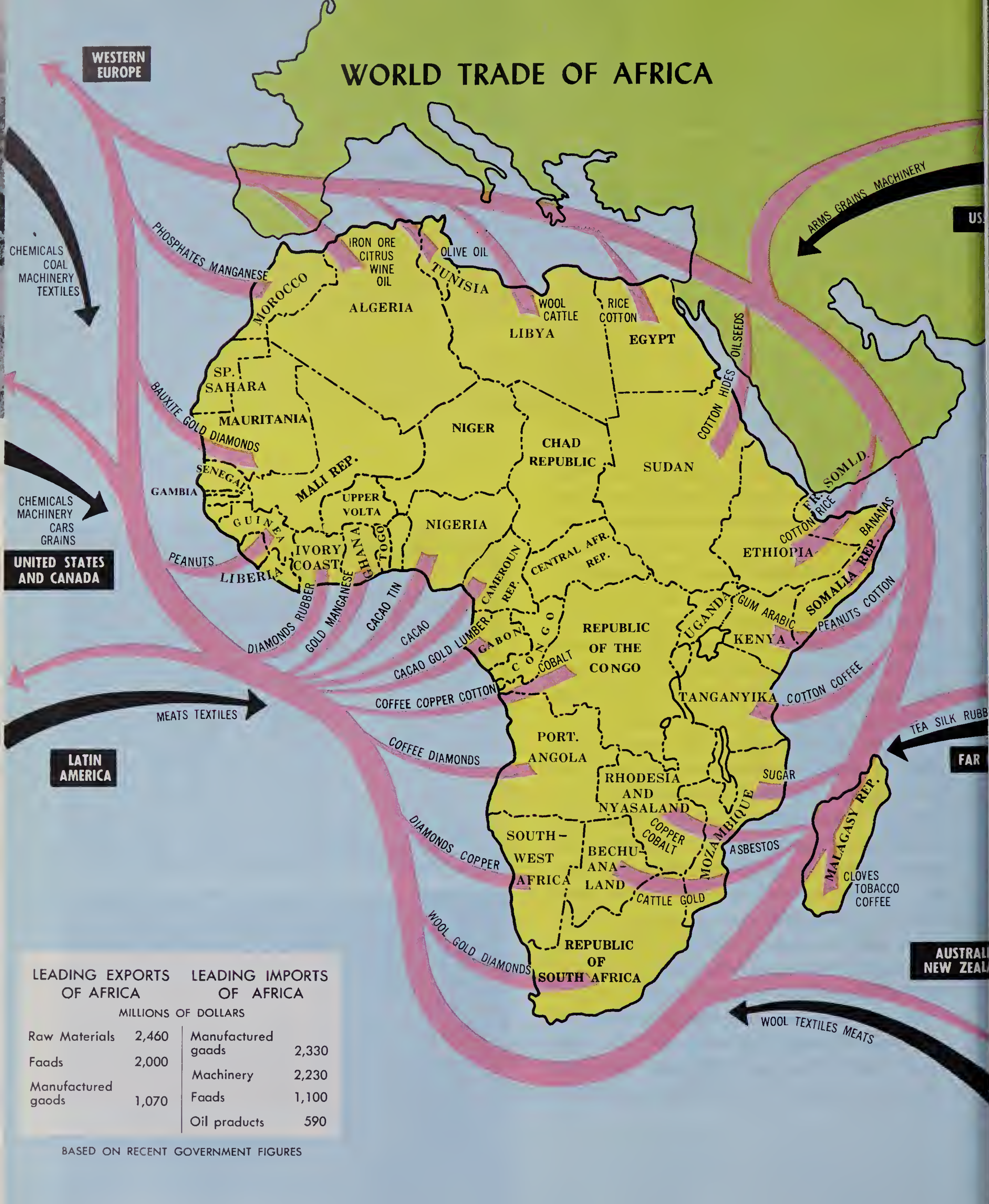
In 1867 diamonds were discovered on the veld. In 1884 the world's richest gold field was discovered in this region. Each discovery brought thousands of people from other countries to the two Boer republics. The Boers did not like to be disturbed by foreigners, or "outlanders," as they called them. Trouble developed, and in 1899 a war between the Boers and the English broke out. After nearly four years Great Britain defeated the Boers and took over the area.

In 1910 the four states were joined to form the Union of South Africa. Half of the white people speak English. Half speak Afrikaans. The Negroes usually use their native tongues.

Above are two zebras with their black or dark-brown and white stripes. Below is a gnu, now becoming scarce. At bottom is a hippopotamus, one of the largest of animals. It swims well and spends much time in water. All of these animals are native to Africa.

Photos from the New York Zoological Society

WORLD TRADE OF AFRICA



LEADING EXPORTS OF AFRICA

MILLIONS OF DOLLARS

Raw Materials	2,460
Foods	2,000
Manufactured goods	1,070

LEADING IMPORTS OF AFRICA

Manufactured goods	2,330
Machinery	2,230
Foods	1,100
Oil products	590

BASED ON RECENT GOVERNMENT FIGURES

The map on page 397 shows the boundaries of the territory of South-West Africa, nearly all of which lies in the Kalahari Desert. Before World War I, this territory was a German colony. Following that war it was given to the Union of South Africa as a trust territory.

Madagascar is a large island east of Africa. In 1958 the island was given its independence by France. The islanders, who call their nation the Malagasy Republic, voted to become a member of the French Community. Much of the island lies in the tropical grasslands. It is a fine cattle country. Products of the tropical parts of the island are rice, cotton, and vanilla, used in flavoring many kinds of desserts.

Living in South Africa

The Dutch and the English settlers brought their European ways of living to the Republic of South Africa. Their town homes and farmhouses are well built. They are built in both Dutch and English style.

The farms are large in South Africa. They are scattered over the countryside as they are in the United States and Canada.

The veld is a grassy prairie on the plateau of South Africa. It has rich, black soil and is a fine farming region. The farmers of the veld are of Boer descent. Each farmer usually has a Negro worker to help him. The worker and his family live in a cottage built by the owner of the farm. The great farms of the veld are passed from father to son.

The farms have both grazing land and cultivated land. The republic ranks with Australia, New Zealand, and Argentina as one of the world's four leading wool-producing lands. Corn and wheat are the leading crops. One part of the veld is often compared to our corn belt.

South African Tourist Corporation

Notice the many tall modern buildings in Johannesburg, South Africa's largest city. The long building is the railroad station.

In South Africa ostriches are raised both for their plumes and for their eggs. Ostrich farms are called ranches.

Near Cape Town, in the sunny lowlands, there are vineyards and groves of orange trees. The lowlands along the Indian Ocean, in the state of Natal, are hot enough to grow sugar cane. Most East Indians who live in Natal are descended from the workers brought from India many years ago to work in the cane fields.

Beautiful homes, broad streets, and modern buildings adorn the cities of South Africa. Johannesburg has many skyscrapers, which house the offices of the large mining companies. Most of the city people in South Africa are of English descent or are Negroes.

Cape Town is the chief port of the Republic of South Africa. It has sunny beaches which people enjoy. Table Rock, a flat-topped mountain near Cape Town, looks down upon the busy city. A little cloud hovers over its summit at nearly all times. People call the cloud the Table Cloth.

Johannesburg is the banking, railway, airway, and mining center of South Africa. Gold mining caused the city to grow to its present size. South Africa produces more than half of the world's gold.

Johannesburg stands on a low ridge, or range, of hills called the Witwatersrand, which means "White Waters' Ridge." The city's skyscrapers, rising above the treeless veld, serve as landmarks for miles around. The hills, usually called just the "Rand," contain gold deposits. There are gold mines in Johannesburg and in all of the near-by suburbs. Mine dumps, of the unused rock from which the gold has been extracted, rise on the skyline in great heaps. The water used in Johannesburg comes from the Vaal River. It is pumped uphill to the Rand. Pretoria is much lower in elevation because it is not on the crest of the Rand.

Negroes work in the gold mines of the Rand. Some of the mines are more than a mile deep. One is more than 9000 feet deep. The workers come from the Portuguese overseas provinces of Mozambique and Angola, from the Rhodesias, and from the republic. But many arrive from farther north and sign up to work in the mines for a certain length of time. While they are in the Rand, they live in special buildings near the mines. When the term for which they have agreed to work is over, most of them return home. But some stay. Those who stay increase the Negro population in the Republic of South Africa. Originally few Negroes lived there. It is now the home of 10,000,000 Negroes.

These Negroes are not permitted to live among white people but must live in separate towns. This system is called *apartheid.* Apartheid is the policy in the Republic of South Africa of requiring the colored races to live in separate areas from the whites, to shop in separate stores, and to ride in separate buses or trains. Apartheid is practiced only in the Republic of South Africa. Not all the white people of the Republic of South Africa believe in apartheid. It is one of the problems this nation will have to work out.

Kruger National Park

The government of the Republic of South Africa has set aside a national park to provide natural surroundings and also to protect its wild animals. The park is in the northeast, the most tropical part of the nation. No hunting is allowed in this park. No one is permitted to carry guns except the guides, who carry them for their own protection. Tourists who drive through can see lions, zebras, giraffes, antelopes, and other animals.

Working in mines

The mining of diamonds is an important activity in the Republic of South Africa. More than ninety years ago diamonds were first discovered in South Africa. A traveler watched some Boer farm boys playing with stones that attracted his attention. He took one of the stones to the coast for examination and found that it was a diamond. The news of his find soon spread to the rest of the world, and the diamond rush was on.

The city of Kimberley grew up at the diamond mines. These mines were only very deep pits. The reason was that the precious stones were found in a vein of blue earth,

South African Information Services

Gold ore is moved for processing in a mine on the Witwatersrand. More than half of the world's gold is mined in South Africa near Johannesburg and in the Orange Free State.

which extended downward into the earth rather than along the surface.

Today there is little mining at Kimberley. The reason is that *alluvial diamonds,* which are on the surface, have been discovered in many parts of Africa. The rivers have washed the diamonds from the blue earth and have deposited them in gravel along the river beds where they can easily be gathered.

Alluvial diamonds come from several places in South Africa. There are many along the Orange River. The sandy beaches of the Atlantic Ocean at the mouth of this river have diamonds in them. Some of these diamonds have been washed all the way to the Atlantic. Alluvial diamonds are found also in Angola and in the Congo. New diamond fields have been found in Sierra Leone, in West Africa. This region now ships diamonds to the world. One South African company, whose offices are in Johannesburg and in London, controls nearly all the world's diamond supply. Today this company is buying only alluvial diamonds. When there are no more of these diamonds, the mines of Kimberley will probably be active again.

Gold is mined in the range of hills of the Witwatersrand. The miners live in Johannesburg, in its suburbs, or in Negro towns. Important deposits of uranium are found with the gold.

South Africa has important coal mines in Natal and in Transvaal. Enough coal is produced to generate electric power to be used for home needs and for the South African mining industry. Coal is also exported by railroad to the Congo, where it is used to run the mines and power plants of the Katanga.

Do you know—

1. Why was Liberia founded?
2. What misfortune befell Ethiopia just before World War II?
3. What European nations granted independence to African lands after World War II?
4. What are South Africa's chief industries?

FPG

SIGNS OF PROGRESS IN AFRICA

The new nations of Africa need educated people. This picture shows the library of the university in Accra. Young men and women study there so that they can help Ghana progress.

Wm. P. Jacob from Shostal

This hospital, which is in Leopoldville, is one of the many modern buildings that show the changes in Africa. With hospitals and schools being built, people can look forward to better living conditions.

5. THE FUTURE OF AFRICA

The people of Africa have waked up. The great natural and human resources of the continent offer a prosperous future. Among the many new nations created in Africa between World War II and 1962, most have chosen to remain associated with their mother countries. Some are members of the French Community. Others are members of the Commonwealth of Nations.

Present-day changes

Education is increasing throughout Africa. New schools are being built at a rapid rate. Universities in Ghana, Nigeria, Uganda, and the Republic of South Africa train teachers. There are also schools where farm managers and farm agents are trained.

The sale of farm products and of the minerals of different parts of Africa has helped in the building of roads and railroads. Railroads now lead inland from many modern and well-equipped seaports. Transportation has been improved in all but the most remote places. Buses now reach many parts of Africa.

The main air route from Europe to South Africa reaches Leopoldville, in the Congo. From there it goes to Elisabethville, and then to Johannesburg. Johannesburg is the air center of South Africa. Ships from all over the world dock at Cape Town.

Great changes have come to the villages of Africa in recent times. Men now leave their native villages and work for a time in mines or on the building of roads and railroads. In this way they get money to pay their taxes and for things they want to buy. When they come home, they bring news of a different world. The things they bring back make other people want to visit other places. All of this results in a different way of thinking. It has caused a great deal of change in many areas. Some remote villages, however, remain much as they were a century ago.

The United States and Africa

The people of the United States, through the years, have sent thousands of missionaries to teach the Africans about Christianity. They have given money to doctors and hospitals in Africa. The work of the missionaries, doctors, and hospitals has had great value in helping the people of Africa.

The United States receives many materials from Africa. Products such as rubber, cacao, palm oil, gold, diamonds, and uranium ore are imported from Africa. The wiring in your home may contain African copper. A chocolate bar, a cup of cocoa, or a chocolate ice cream cone may have cacao from Africa in it. The panels of your television set may have been made from African wood.

About 10 per cent of the people of the United States have ancestors who lived in Africa, most of them in West Africa. These people have made many contributions to our life in music, dancing, and industry.

Africa, an important frontier

Africa south of the Sahara has many different peoples. It has large forests and grasslands, great rivers and lakes, high mountains, and important mineral lands. It has thousands of villages and hundreds of cities, some of them ancient and some very modern. Africa's new nations will be more important as they learn to manage their own affairs.

Africa today may be compared to the United States when this country was beginning to grow and develop. It is a frontier land. The future will see great advances.

TO HELP YOU LEARN

Words and Terms to Remember

scholarship
apartheid
federation
Afrikaans
alluvial diamonds

A Matching Game

Number a paper from 1 through 5. After each number write the word or term from the list above which matches the definition.

1. Precious stones found in the gravel along river beds
2. A system of separating the races in the Republic of South Africa
3. A language based on Dutch, spoken in parts of South Africa
4. Money or other aid given to help a student continue his education
5. A union formed by two or more countries in which each keeps the management of its own local affairs

Finding the Facts

1. How did the early traders from Europe and Arabia obtain slaves in Africa? Why was the market for slaves very large between 1600 and 1800?
2. Describe a farming village in the tropical forests of West Africa. Why does soil in the tropics quickly lose fertility? What do farmers do when this happens?
3. How does farming in the African grasslands differ from farming in the tropical forests? What crops do grassland farmers raise?
4. How was Liberia founded?
5. How did Ghana gain independence? What are its chief products?
6. How did Cecil Rhodes hope to improve transportation in Africa? To what extent was his dream fulfilled? Why will the rest of his dream probably never be realized?
7. Why does the Republic of South Africa have two official languages?
8. How were diamonds discovered in South Africa? How were these diamonds mined? How are most diamonds gathered today?
9. What changes have taken place in many African villages in recent years?
10. Discuss the new nations of Africa. What are some of their problems?

Using Maps

1. On the map on page 31 show the route that Vasco da Gama followed in sailing from Portugal to India. What development later made it possible for ships to take a shorter voyage from Europe to Asia?
2. On the maps, pages 44–45, find the parallel of latitude of the southernmost point in the United States. Through what part of Africa does this parallel pass? What part of the Western Hemisphere lies in the same latitude as most of Africa?
3. On the map, page 397, locate:
    - (*a*) Twenty new African nations
    - (*b*) Africa's largest fresh-water lake
    - (*c*) The sources of the Nile River
    - (*d*) The city which is the center of gold mining in South Africa
    - (*e*) The mountainous country that Italy conquered just before World War II
    - (*f*) The "horn" of Africa
    - (*g*) The large desert called the Sahara
    - (*h*) The desert in South Africa
4. Compare the world-trade map of Africa, page 416, with the world-trade map of Latin America, page 215. What similarities are there between the exports of the two regions? How are these regions alike in their needs as shown by their imports?

Making Geography Real

For thousands of years Africa's history has been influenced by three of its great rivers: the Nile, the Niger, and the Congo. Of these rivers the Nile, which rises in East-Central Africa and flows northward to the Mediterranean, is the longest and the most famous. To Egypt, which is an almost rainless region, it is a life-giving stream. Without the Nile, Egypt could not have become one of the cradles of civilization. Without the Nile, it could not have become the center of a splendid culture whose gifts have benefited the peoples of the world.

The Niger, a river of West Africa, also has a historical claim to fame. Near the bend of the Niger River the ancient kingdom of Ghana grew up. Ghana was a great trading center in the early Middle Ages. It is from this kingdom, which flourished more than one thousand years ago, that the new African nation of Ghana took its name.

Farther south, in Equatorial Africa, is the Congo. The Congo is a mighty river because the rains in this tropical region are heavy. As it flows westward across the continent, it is joined by many tributaries. When it reaches the Atlantic, it is a wide river pouring millions of gallons of water into the ocean daily.

The Congo and its tributaries form a long network of waterways for transportation into the heart of the continent. But the many rapids and falls make travel difficult. Short railroad lines provide transportation along the river where boats cannot navigate the rapids. Until the coming of the airplane, however, this river system was the best means of travel for people living in villages in small jungle clearings along its banks.

Today the Congo, flowing through Central Africa, forms part of the boundary line between two new republics, both of which have taken its name. On its left bank stands Brazzaville, capital of the Congo Republic. On its right bank is Leopoldville, capital of the Republic of the Congo. The great river serves both nations, giving them an outlet to the ocean.

Reread the story of Africa's great rivers and answer the following questions.

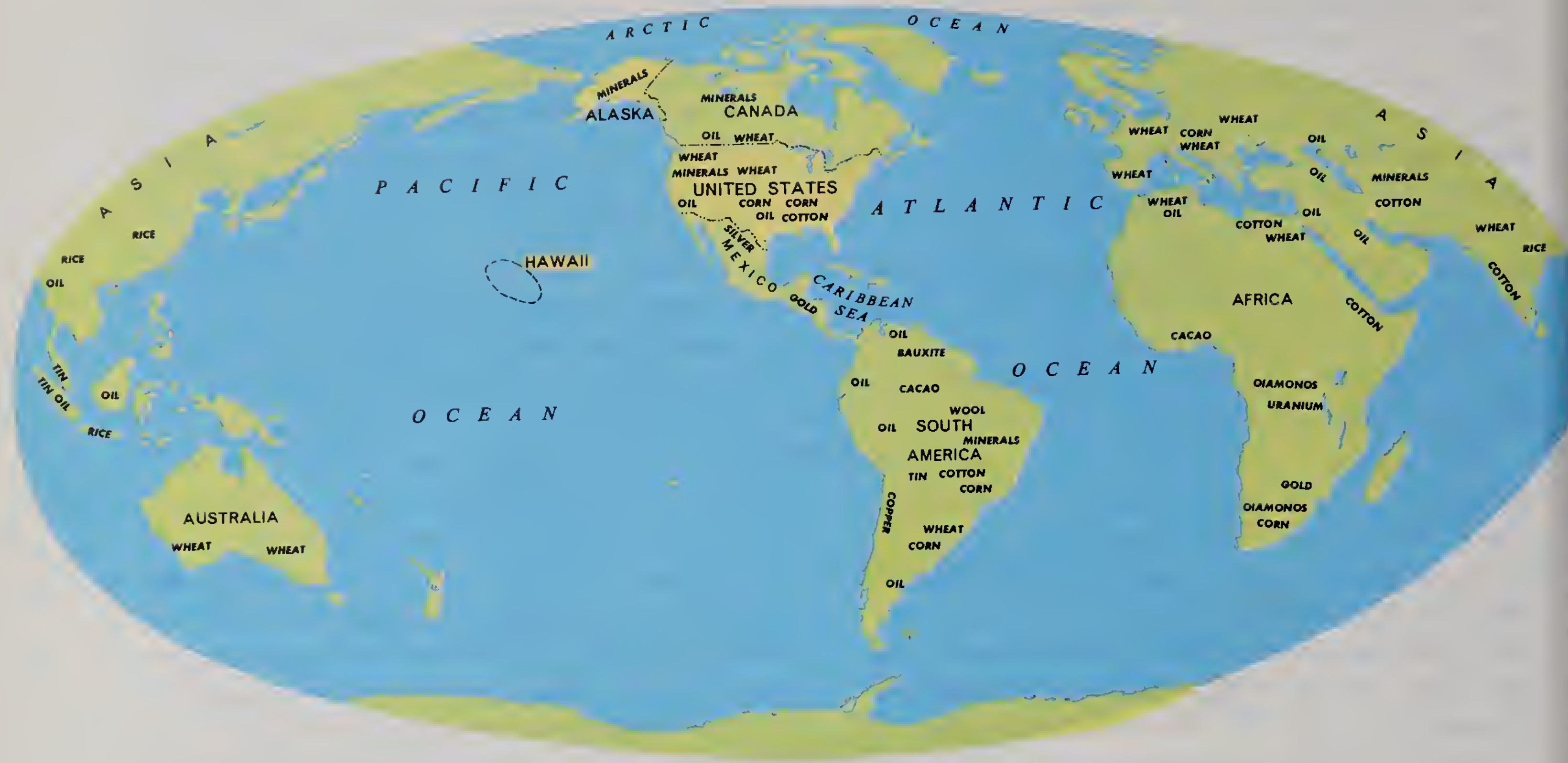
1. How can it be said that the Nile River influenced world civilization?
2. What kingdom flourished near the Niger River in the Middle Ages? How is it remembered today?
3. What two new nations of Africa are served by the mighty Congo River?
4. Is Africa as dependent on its rivers today as it has been in the past?

Interesting Things to Do

1. Henry M. Stanley, Dr. David Livingstone, Cecil Rhodes, Dr. Albert Schweitzer, and Emperor Haile Selassie all have a place in the history of Africa. Divide the class into four groups, and let each group collect information about one of the men and prepare a dramatized report about him.
2. Imagine that you are the director of a new zoo. Plan a trip to Africa for the purpose of securing some of the animals you need. Make a list of these animals, and tell where you would find each kind. Use encyclopedias as well as your textbook.
3. Make a daily search for newspaper accounts about Africa. Let the members of the class take turns in reading the news items.
4. On his hunting expedition in East Africa Theodore Roosevelt collected scientific information about wildlife there. You might like to do research on this in the library and make a report on it.

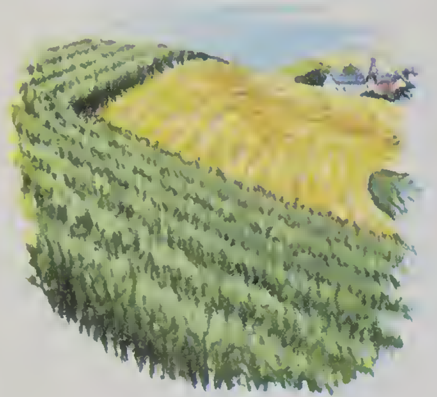
Things to Think About

1. Would the settlement and development of Africa have been different if it had been explored as early as North America was? Explain your answer.
2. What reasons are there to believe that the people of the new nations of Africa will have a more prosperous life in the future? What problems will they have to solve to bring this about?



10.

Developing World Resources



Contour plowing

Planting young trees

Using dams in flood control

A modern oil field

MR. HENDERSON, a citizen of a town in the Missouri Valley region, returned home one night to find the lights in every room burning brightly. When he entered the living room, he found his two children, John and Anne, there. They had turned on the lights all over the house and had forgotten to turn them off again.

Mr. Henderson sent his son to turn out the lights in the other rooms. Then he called John and Anne to his side to discuss the matter with them.

"Electricity in our town is precious," he said. "It is made in a plant that burns coal," he explained. "In the plant huge machines turn the energy of the burning coal into electricity. This is expensive. The coal is shipped in by railroad from coal mines in Ohio and Illinois. The freight charges for shipping the coal from these faraway places are high. All this makes our electric rates very expensive."

"Why must we bring coal from so far away?" asked John.

"Because we have no coal here," answered his father. "Coal is a natural resource found only in certain areas. Burning unneeded lights makes our electric bills high. It also means that we are wasting a natural resource."

"Is all electricity made from coal?" Anne asked.

"No." her father replied. "In some parts of our country electricity is made from water power. Water power is a natural resource like coal. But unlike coal, water power can go on for as long as the rivers flow. When coal is burned, it is used up, or exhausted. Coal, therefore, is an exhaustible natural resource. But water power is an inexhaustible natural resource. On these prairies, however, we have neither coal nor waterfalls. In these flat lands streams have only a gentle flow. To provide power for electricity, the water must fall a considerable distance."

When school opened the next day, John and Anne were asked to go to the gymnasium. There they found doctors ready to give them polio shots.

"Why must we take the polio shots?" John asked.

"The vaccinations, or shots, will help to guard against the disease of poliomyelitis, which we usually call polio," answered the teacher. "The shots are being given to children all over our country. Your government wants you to be well and to keep well. You are important to your family and yourselves as individuals. You are also important because you are part of the human resources of our nation.

"The people of a nation are its human resources. The United States is strong because it has fine natural resources and because it educates its people and helps to keep them healthy."

In this unit you will find the answers to such questions as the following:

1. What are the different kinds of natural resources?
2. How are these resources used in making a living?
3. How should our natural resources be used?
4. Why are human resources important to a nation?
5. How should our human resources be protected and developed?

The valley through which the Mississippi River flows is the world's most fertile farm region.

1. OUR NATURAL RESOURCES

Natural resources are gifts of nature found in all parts of the world. Some parts have more than others. All peoples are fortunate in having natural resources about them which they can put to use. But some use the resources better and more wisely than others.

THREE GROUPS OF RESOURCES

Natural resources are generally classified in three groups. One group is composed of *unfailing,* or inexhaustible, resources. The air is one of these. There are other natural resources which replace or rebuild themselves after they are used if given enough time. Natural resources of this kind are called *renewable.* A forest is a renewable resource. The trees may be cut down and the lumber used, but if young trees are planted and time is allowed for them to grow, the forest will be renewed. A third group of natural resources is composed of *expendable,* or exhaustible, resources. When such resources have been used, they are gone forever. Most of our minerals are expendable resources. For this reason they should be used wisely rather than wastefully.

Unfailing resources

What are some of the unfailing, or inexhaustible, resources? The air is one. Another is sunshine. Plants must have the energy of sunlight to grow. People also need sunshine to keep well. Thus plants and animals depend directly upon life-giving sunshine. Since animals and plants are used for food, sunshine is also used indirectly by people.

Sand and gravel are another kind of inexhaustible resource. These common materials

Fairchild Aerial Survey

of the earth are present in large quantities around the world. They can be used in surfacing of roads, the making of concrete, and in other ways. Although used in tremendous quantities, the supply of sand and gravel in the world seems hardly to have been touched. Sandy beaches, sand dunes, and sand and gravel on the beds of rivers are found in nearly all parts of the world.

Clay is another unfailing natural resource. Deposits of clay are found in all parts of the world. The amount of clay used in manufacturing compared to the amount in existence is so small that we can say that clay is inexhaustible. It is true that the very finest chinaware must be made from very special clays. But people usually find a suitable clay deposit in their home region for making the kind of china they want to make.

The waters that fall in the rainy regions of the earth are an unfailing, or inexhaustible, resource. The waters of the oceans, the seas, and large lakes are also an inexhaustible resource.

The climate of an area is another unfailing natural resource. Temperature, rainfall, winds, and other elements of climate are among the natural resources of a region. So, too, is the amount of sunshine that a region receives. Regions which have a Mediterranean climate receive much of this natural resource. Most desert regions have a great deal of sunshine but lack rainfall.

The climate of any region influences the natural vegetation of the region. In general, a region that receives abundant rainfall produces a forest. A region that receives seasonal rainfall is usually a grassland, or prairie. In regions of low rainfall there are deserts. The natural vegetation of a desert is usually desert shrubs. In our western dry lands the common desert shrub is sagebrush. Do you know of any cowboy songs that mention prairies and sagebrush?

Renewable resources

Many gifts of nature renew themselves with the years. Our soil, our wildlife, and our forests are all renewable resources. But they, too, should be used wisely.

Soil is sometimes washed away. Soil erosion results when the rich topsoil is carried away by rivers or by strong winds. Every time you see a muddy river, you know that the river is carrying precious topsoil to the sea. In a region where the soil is reddish in color, you will see a muddy, reddish river. On our western prairies, where the topsoil is black, the river will be black and murky if there is soil erosion. A clear and beautiful stream is a wonderful sight. It tells us that there is little or no soil erosion in the region through which it flows.

When the soil is dry and powdery, it is easily blown about and carried away by the wind. *Wind erosion* is as bad for the soil as water erosion is. When wind erosion goes on, the air is filled with dust. We call this a dust storm. In severe dust storms it is impossible to see objects at any great distance. When the storm is over, the dust settles. But it does not settle in the area from which it has come. That area has lost some of its valuable topsoil. Wind erosion occurs continuously in the deserts and steppes of the world. It is sometimes very serious in our western dry lands and in the southern part of our Great Plains.

Soil erosion, either through water or wind, can ruin farm lands and turn a region into a desertlike area. Later in this unit we will discuss how erosion can be prevented. It is true that soil can be renewed if given enough time. Soil is built up from decayed grasses and leaves mixed with very small particles of rock. Unfortunately, the time needed for the weather to change rocks into the small particles which will mix with decayed vegetation is a very long time. Soil erosion is a serious matter because it destroys the topsoil for the people living in the region at the time and for several generations to come. Only time can renew topsoil.

Water is a renewable resource. Falling rain soaks into the ground. It accumulates below the surface of the earth and fills the spaces and cracks in the underground rocks. Some rocks, like sandstone, resemble a sponge. The space between the grains of sand fill up with water. When wells are dug, they reach down to the water under the ground.

Unfortunately wells sometimes go dry. This happens when the *water table* drops. The water table is the top surface of the ground water. By pumping the water from wells, people may use up the water in the ground faster than it accumulates. The water table then drops to a lower level. If the water table drops below the bottom of a well, the well goes dry. The well has to be dug deeper in order to reach down into the ground water.

In some irrigated areas in the United States and elsewhere, the water of rivers has been used in such large quantities that the rivers cease to flow. In this case the river bed downstream has no water. It will be a dry stream bed.

Near some of our largest cities the people use water faster than it accumulates. The water in the city reservoir drops to dangerously low levels or dries up. In cases like this, the city government has to make arrangements to secure a water supply from other and sometimes distant areas.

Water is a renewable resource in that it can be replenished by good rains. It can be renewed faster than soil can be. It may be renewed in a few years, as a matter of fact. But because homes and factories, and especially those with air conditioning, are using water in greater and greater quantities, our water resources must be conserved. In a few areas only, such as those near the Great Lakes, is there so much fresh water that the wells are inexhaustible.

Wildlife is another renewable resource. But some kinds of wildlife, such as the passenger pigeon and the Labrador duck, are gone forever. The American bison, or buffalo, was almost wiped out. It is said that only 541 bison remained when the United States government undertook their protection. The whooping crane almost became extinct. Only a few whooping cranes remain today. But if people protect wildlife and hunt carefully, rather than killing or catching everything in sight, wildlife is a renewable resource. The fish and game laws of this and other countries are designed to protect and care for their wildlife.

Forests are renewable. Trees may be cut down and the lumber used, but if people replace them with young ones, the forest will grow up again. Forests must be protected, moreover, from fires, from destructive insects, and from plant diseases. The countries of northern and western Europe take good care of their forests. Germany, Austria, Poland, Finland, Sweden, and Norway have practiced conservation of forests for many years. As a result, they have fine woodlands. Greece, Italy, China, and some other lands have not done so. Not only are most of their forests gone, but heavy rains also have caused erosion of the topsoil. Had there been trees, the water would have been held back so that it would have fed the streams more evenly. Hilly areas with no forests for protection are subject to erosion.

Redwood Empire

Giant sequoias, or redwood trees, are the largest and probably the oldest living things in the world. Some are over 300 feet high and more than 3000 years old. The sequoias shown at the right are in Sequoia National Park in California.

Forest conservation began to be practiced in the United States in the early 1900's. Some forested areas have been set aside and are protected as national forests. Some states also have state forests. The Federal and state governments have replanted trees where the forests were cut down and where the land is not good for farming. Some lumber companies working in forested lands also replant trees. Looking after the forests in western regions are trained men, called foresters. A forester is an important worker in the field of conservation.

Exhaustible resources

The mineral gifts of nature are expendable, or exhaustible, resources. When coal and oil have been taken from the ground and used, they are gone forever. New deposits of minerals do not form in any period of time that we can estimate.

Two of the first metals used were copper and tin. These two metals, when mixed, formed an *alloy* called bronze. These metals were easy to find because pure copper and tin lay on the top of the ground in some regions. These metals are also easy to shape or to mold. The ancient peoples, who mixed tin and copper in this way, lived in what is called the Bronze Age. They used stones to shape the bronze. Today metals may be pounded into shape with hammers or shaped by rollers in machines.

When men discovered a harder metal, called iron, bronze was little used. The Steel Age began, it is generally agreed, with the Industrial Revolution (see page 141). During this period iron ore began to be used in large quantities. Our machines, the framework of large buildings, our bridges, and many other works of man are made in whole or in part of iron or of steel. Steel is an alloy of iron and carbon. Each ton of steel also has a few pounds of a mineral called manganese alloyed with it. Iron alone is also put to many uses, as in cast iron.

Steels manufactured for special purposes have an additional metal alloyed with them. Steel alloyed with a small amount of chromium is very hard and strong. It does not rust rapidly. Steel alloyed with cobalt can be shaped to fine cutting edges. This kind of steel is used in machine-tool manufacture. Nickel steel is tough, stiff, and strong. It is used, among many other ways, in bulletproof steel. Tungsten steel is the steel of high-speed cutting tools.

Chromium, cobalt, nickel, tungsten, and vanadium are called *ferroalloys* because they are alloyed, or mixed, with iron (*ferro* comes from a Latin word meaning "iron") and with carbon and manganese to make special kinds of steel. Unfortunately, the metals known as ferroalloys are not too common. The mines of Canada and of New Caledonia, in the Pacific, produce nickel. Vanadium comes from Peru. Other distant places supply other ferroalloy metals.

We use many other minerals from the earth. Bauxite, copper, with the ferroalloy metals, and others are very useful in the modern age in which we live.

The world today is a large user of oil. Oil has replaced coal as a source of power in running many machines. Oil is also used for heating and for lubricating machines.

We are now living in the Atomic Age. The splitting of the atom and the release of energy through a chain reaction first occurred in the late 1930's and early 1940's. Uranium ore, used in producing atomic power, is also a natural resource.

Our mineral resources are priceless. No nation today can be strong and free without a supply of many minerals at home or without the money and ships to buy and transport the necessary minerals to its factories. Minerals are necessary to maintain our standard of living. Our problem is to use them wisely and well and not wastefully.

CHANGING USES OF NATURAL RESOURCES

Let us see how the natural resources of our country have been used in the past.

How the Indians used the land

When the first Europeans reached North America, Indians were living in the woodlands which stretched from the Atlantic coast to Minnesota and to eastern Texas. They were living on the grassy prairies of the Mississippi and the Missouri River valleys. They were living on the Great Plains, in the Southwest, and along the Pacific coast.

The woodland Indians depended for food upon the wildlife of the forests and upon the fish of the streams, lakes, and seacoast. In other words, they were using the two resources of forests and water. They were farming Indians, too, for they used the soil to raise such vegetables as corn, beans, and pumpkins. They also gathered nuts, berries, and herbs and so used the natural vegetation.

The forest Indians were careful hunters. The chiefs knew that the tribe would starve if all the game were killed. An Indian who killed game merely for sport was warned, and even punished, by a council of chiefs.

The Indians of the Plains depended for their living upon the animals which fed on grass. The grass of the prairies was the food of millions of animals, and especially of the bison. From the bison the Indians obtained meat, bones for tools, hides and furs for clothing and shelter, and sinews for thread.

The Indians of the dry Southwest were mainly farmers, who lived in pueblos made of sun-dried brick. They used the soil for raising crops. They used water to irrigate their farms.

The Indians of the Northwest depended upon the forests and the sea. They spent much time in fishing and obtained much of their food from the rivers and the ocean. Salmon were their principal food.

How the early settlers used the land

The early settlers in the English colonies were looking for land to farm. They settled at first along the Atlantic coast, where they found the land covered with trees. To them the forests were obstacles which had to be cleared from the ground before the land could be farmed.

The settlers used some of the wood from the trees they cut down. They built homes and stockades of wood. They burned it as firewood. They burned whole trunks of trees to obtain ashes from which to make soap. They built rail fences of wood around their fields. In clearing the land, however, they not only destroyed fine forests, but they also drove away the forest animals, which were then without shelter. When the wildlife disappeared, the Indians found it hard to live.

After a time settlers moved westward to the prairies. They plowed up the prairie grasses and planted grain and other crops. In the Missouri River valley some of the prairie sod was used to make sod houses. The people lived in sod houses until they could afford to buy wood, which had to be brought from a distance. Plowing up the prairies destroyed the food of the grazing animals. Wild ducks, wild geese, and other birds also lost their feeding grounds as fields replaced the wet prairie hollows.

The livelihood of the prairie Indians almost disappeared. Of course, the Indians were troubled by this and fought to defend their lands. There were wars between the Indians and the white men. The large crops grown on the rich, black soil replaced the original natural vegetation. The white settlers depended upon crops rather than on the natural vegetation and wild animals.

Worn-out farms

The farms of our eastern states, and especially the farms of New England, wore out after awhile. The topsoil became poor because it lost certain elements necessary for the growth of good crops. The settlers of the 1700's grew crops without fertilizing the soil much. Their crops used up the plant foods in the topsoil. The farmers of the early 1800's continued to use the soil in this way. The yields of crops became less and less. In time, many fields produced barely enough to pay for the cost of working them.

What did many of the farmers do then? They left their farms and moved west. In the West some of them bought new land cheaply. Others took up government land offered free to those who would live on it and farm it for a certain number of years.

End of the frontier

The forward, or western, edge of farm settlement was called the frontier. The frontier moved westward across the United States with the migration of settlers.

By the 1890's settlers had occupied most of the desirable farm lands. No longer could free new land be easily found in the West for those who wanted to abandon their worn-out farms in New England.

After there was no more free land, our citizens began to think about conservation. They realized that the topsoil had to be protected and that fertilizers could be used to enrich it. Some farmers in the East, however, had kept their lands in good condition.

The easily reached timber had been cut, also. By the early 1900's the forest frontier had reached western Minnesota. Behind it lay the cut-over lands of the upper Great Lakes region. Conservation of our forests began in the late 1890's and early 1900's.

Use of water power

The early settlers used water power to turn the wheels of their small sawmills, grist mills, flour mills, and woolen mills. They built dams on small streams, and the force of falling water turned water wheels. A shaft attached to a water wheel turned machinery in the mill. Belts carried the power to different machines. Such a mill had to be located beside the dam.

Use of minerals

The early settlers of our land were more interested in farming than in mining. But small deposits of iron ore were worked here and there. The iron ore was smelted in small furnaces which used charcoal as a fuel.

The anthracite, or hard coal, fields of Pennsylvania came into use in the early 1800's. The coal was used in iron mills. At first, it was not used to heat homes because people had plentiful supplies of wood. In the 1790's four wagonloads of coal were driven into Philadelphia for sale. The drivers managed to sell the coal from one wagon. They dumped the rest and went home.

Soon, however, the coal of Pennsylvania began to be used in large amounts. Factories were started. Iron ore from the eastern states was smelted. The United States entered the Industrial Revolution during the period of

1800 to 1850. Then, in the 1850's the tremendous iron-ore deposits near Lake Superior came into use. After the Soo Canal was opened in 1855, the iron ore of Minnesota was shipped down the Great Lakes to the coal fields of Pennsylvania. As a result, a great iron-and-steel industry developed. Pittsburgh grew into a large city.

During the 1850's oil was first discovered in the United States, in northwestern Pennsylvania. Oil, too, soon joined coal and the metals in making changes in our way of life.

By the time of the War Between the States many people in the Northeast were making their living in manufacturing. And manufacturing depends upon mineral resources.

Our nation has come to depend more and more upon its mineral resources with the passing years. We need our soil, forests, minerals, water, and many other gifts of nature to support our present way of life.

The Indians, the first settlers, the western pioneers, all depended upon natural resources just as we do today. But they used them in different ways. For many years, the United States has depended upon minerals for much of its manufacturing. In fact, today we live in the age of the largest use of minerals the world has ever seen.

Our way of life depends upon food and factory materials grown in the soil, upon forest and mineral products, and upon water and the other natural resources of the earth. We live from our use of nature's gifts.

Do you know—

1. What is an expendable resource? A renewable resource?
2. What effect does abundant rainfall have on vegetation?
3. What are the signs of failure to protect soil?

Inside this tall derrick is the drilling machine which is used for drilling, or digging, oil wells.

Standard Oil Co., (N.J.)

John A. Cypher, Jr.

A special breed of cattle, shown here during a roundup, has been developed on the King Ranch in Texas. This famous ranch, which is near the Gulf Coast, is the largest in the United States.

2. MAKING A LIVING FROM NATURAL RESOURCES

People the world over are alike in that they all need food, shelter, and clothing. Whether they live well depends in large part on the natural resources of the area in which they live and how they use them.

Natural resources may be used directly or indirectly. A miner makes his living digging coal, iron ore, or other minerals. He is paid for doing so, and he earns his living by working directly with the minerals. The factory workers who run the machines that are made of iron and steel are using the minerals indirectly. A farmer grows wheat in the soil. He uses the soil and the rainfall directly to earn his living. The worker who makes the flour from the wheat, or the worker who bakes the bread from the flour, is using the resources indirectly. But his livelihood depends upon the resources nonetheless.

Let us look at some of the ways in which people earn a living—directly or indirectly—from natural resources.

USING NATURAL RESOURCES DIRECTLY

Farmers, ranchers, miners, quarrymen, lumbermen, foresters, and fishermen earn their living the world over through the direct use of natural resources.

Farming and ranching

About three fifths of the people of the world live on farms and raise the basic foods they eat. About one person in eight in the United States lives on a farm or ranch. Many food crops are processed in factories. Cotton and tobacco are examples of processed crops.

Two resources that every farmer needs to make a living are soil and rainfall. If the soil is poor, he will not make a good living no matter how hard he works. Crops will not grow well and what he raises will be small in quantity. Where the soil is good and there is enough rain, the farmer will raise good crops if he works hard. He may even be able to raise good crops without working hard if the soil is rich. Some places have rich soil but do not have enough rainfall. The farmer in such areas irrigates his crops if there is a supply of water from springs, wells, or rivers.

A rancher who lives in a dry land usually raises large numbers of animals. What natural resources does a rancher depend upon? Mainly the natural vegetation of the area in which he lives. The vegetation is grass and shrubs because of the low amount of rainfall. But a rancher has to have hay to feed to his animals during the winter. He raises the hay he needs through irrigation.

Quarrying and mining

A man who works in a quarry gets rock from the earth. A man who works in a mine digs minerals from the earth. The quarryman obtains limestone, marble, granite, or other kinds of rock. The miner may dig out such ores as copper or iron, he may unearth precious materials such as gold or diamonds, or he may bring up a mineral fuel such as coal. Marble, granite, and other kinds of rock are used in building, or they may be crushed for use on roads. Limestone is used in the making of cement. Minerals may also be used in the construction of machines.

Lumbering and forestry

Many thousands of people the world over make their living by working in forests and related industries. Some cut down trees. Some transport the logs to the lumber mills, where they will be sawed into boards. Others work in lumber mills or in pulp and paper factories. Our newspapers, as you know, are printed on paper made from wood or woodpulp. Other persons work in furniture factories and in making tar and turpentine.

Foresters and forest rangers work in woodlands. Some woodlands are owned by the government. Others are privately owned. The foresters care for and protect the forest. They decide what trees are ready to be cut. They help replant trees in the cut-over areas.

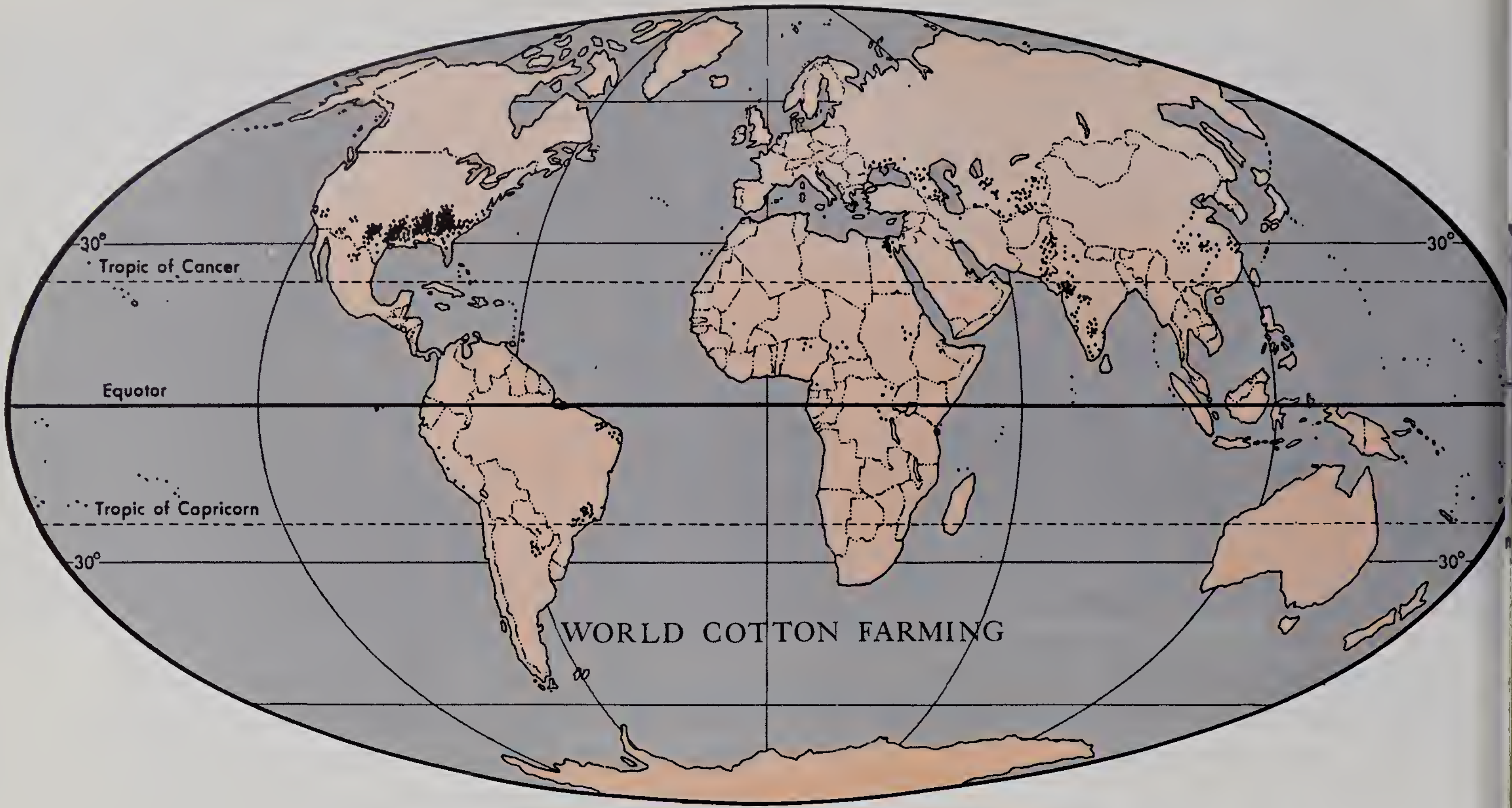
Fishing

Fishermen earn their living by catching and selling fish. Some waters have more good fish in them than other waters. The Grand Bank of Newfoundland, the waters near Norway, and the waters near Japan and Alaska are among the world's finest fishing regions. Fishermen from several countries gain their living in these areas. But not all fishermen are free to fish in them. For example, the United States, Canada, and Japan have written agreements about where each nation may fish in the North Pacific Ocean, off the coast of Alaska. France has two islands in the Gulf of the St. Lawrence which French fishermen use in working on the Grand Bank.

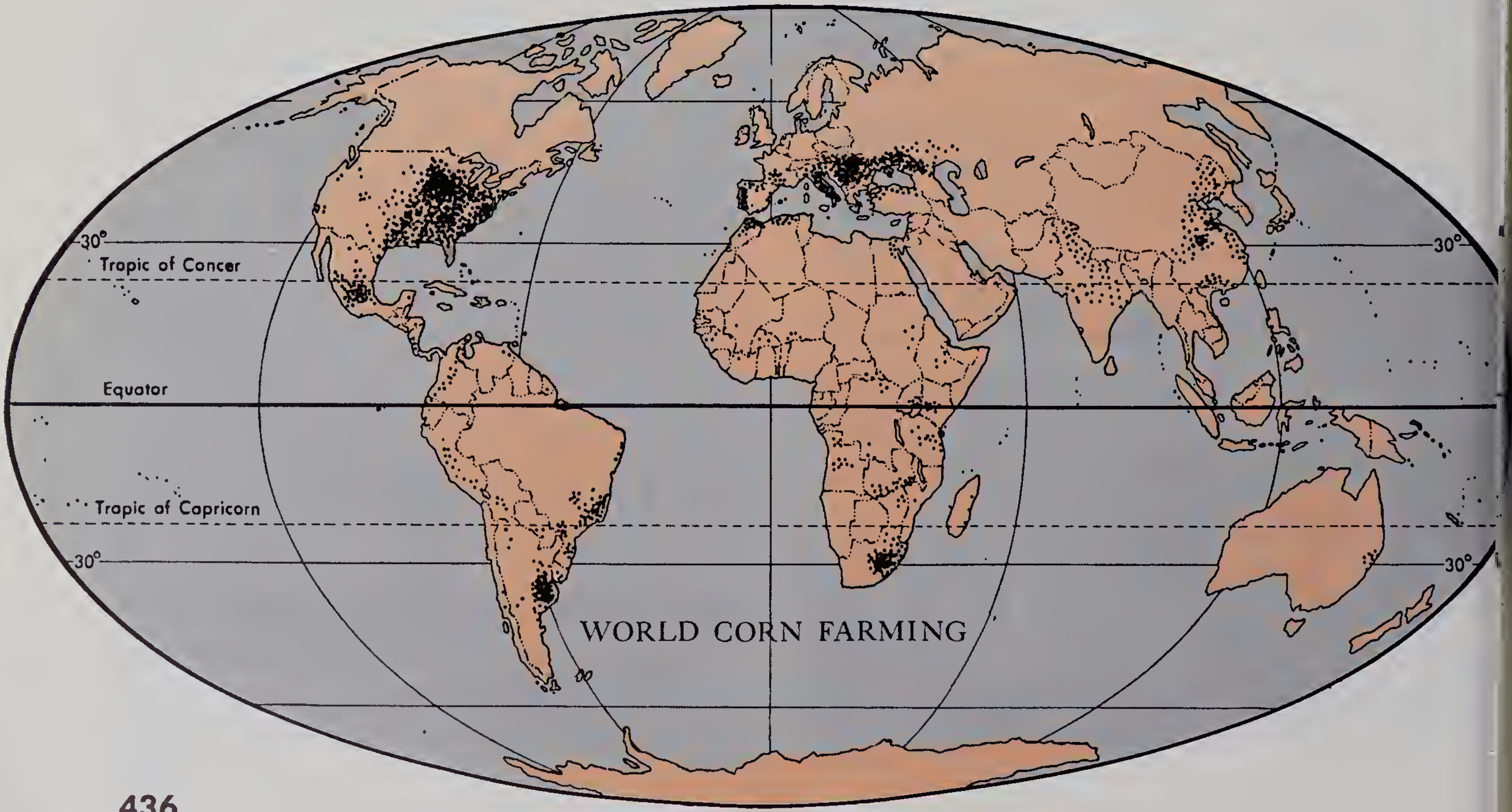
Thousands of fishermen depend upon rivers, lakes, and oceans for their living. When we think of the millions of cans of fish and the large quantities of frozen fish handled by grocery stores, we realize that many persons have made a living by catching them. Others have earned a living by working in the factories where the fish were canned or frozen.

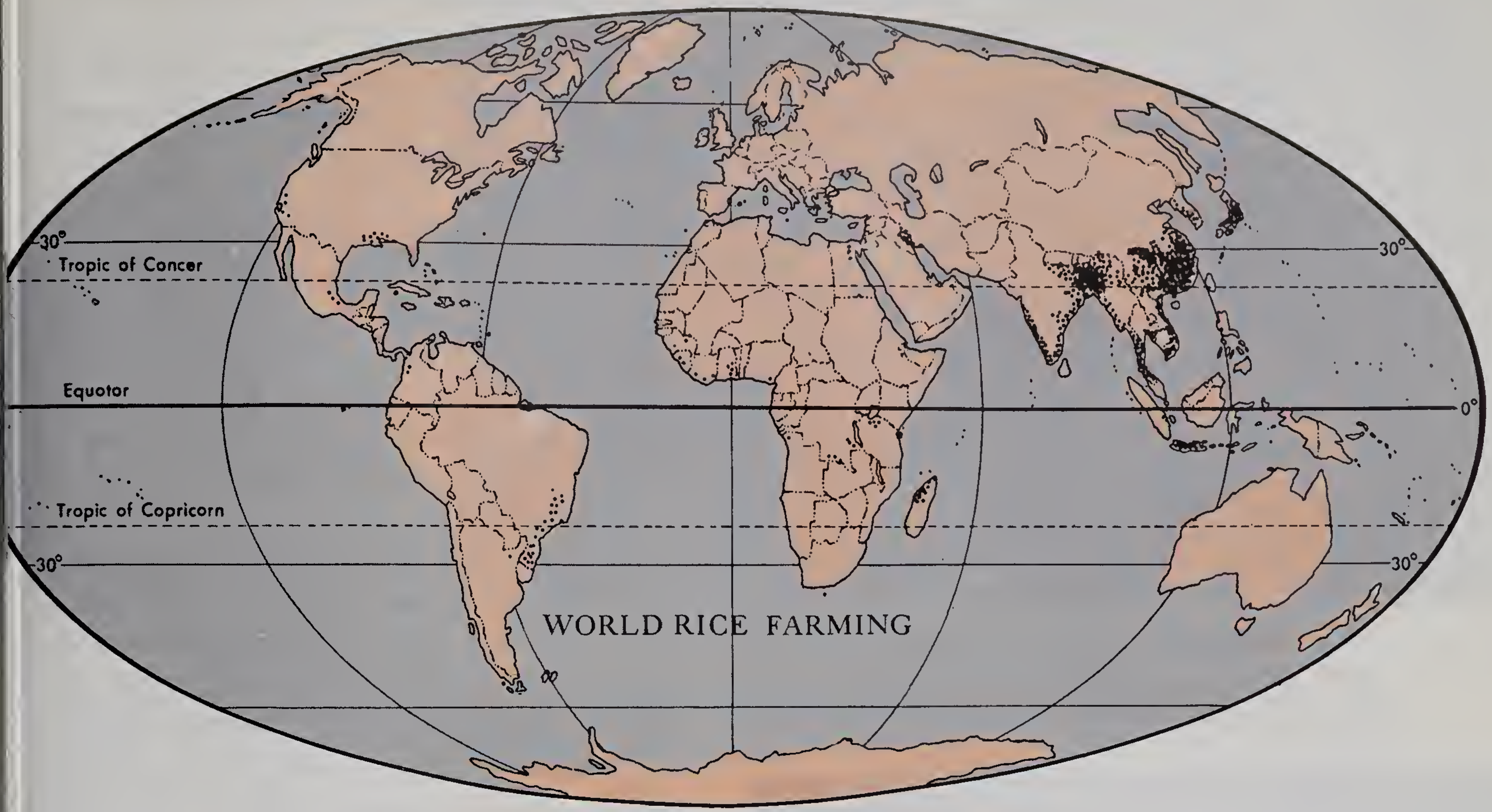
USING NATURAL RESOURCES INDIRECTLY

People who live in towns and cities usually use natural resources indirectly. Their food has come from the soil or from the sea.

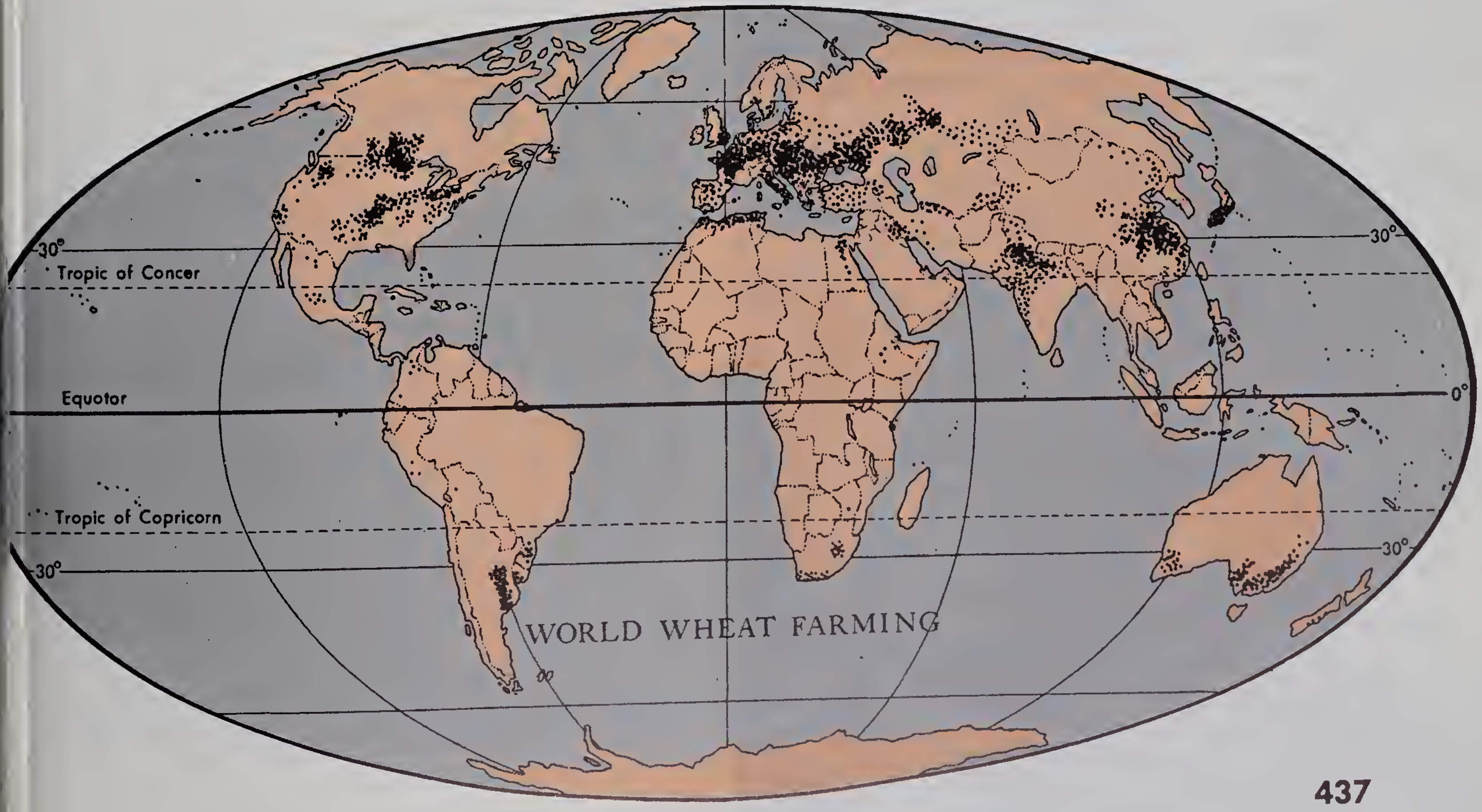


PRINCIPAL REGIONS OF PRODUCT





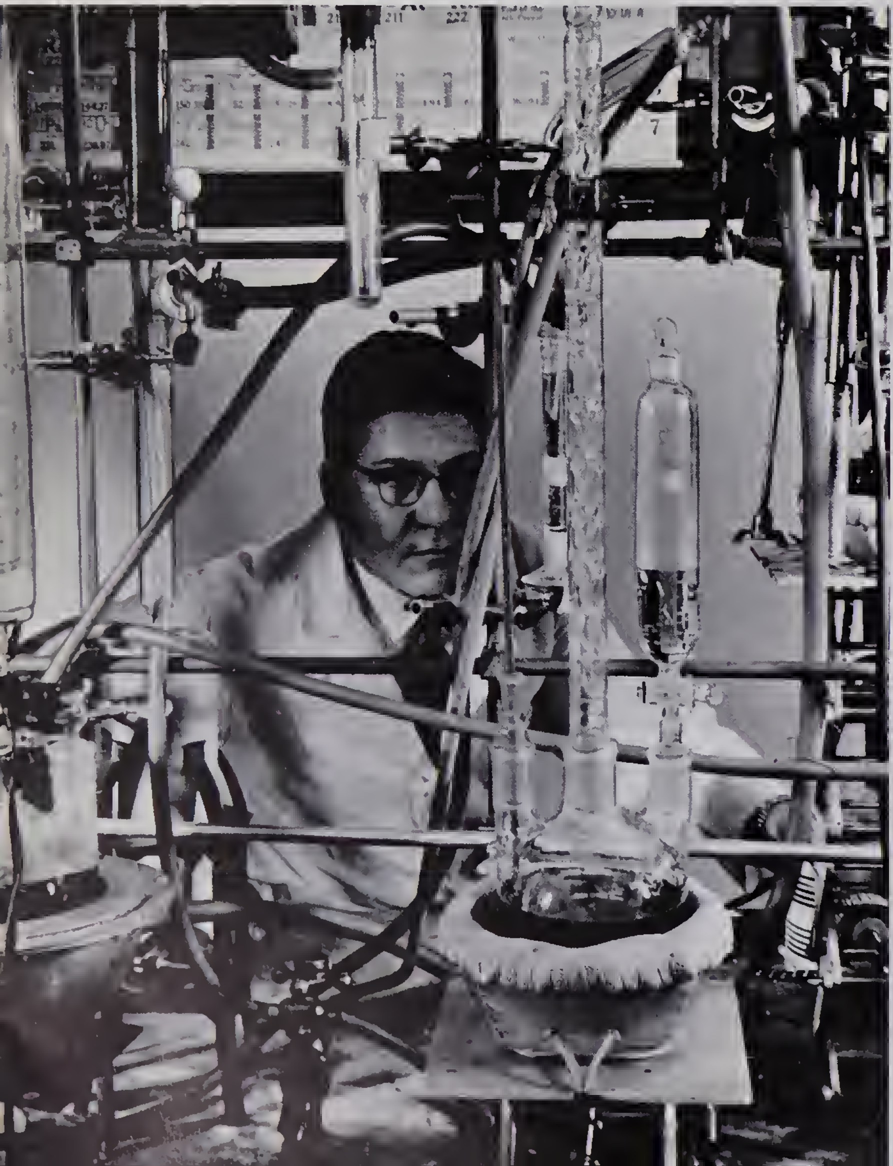
HE WORLD'S BASAL FARM CROPS



Their cotton clothing has come from the soil and their woolen and fur clothing from animals. But they may also wear clothing made from synthetics, or artificial materials. Some synthetics are manufactured from cotton, others from coal, and still others from wood fibers. Our many synthetics are made according to formulas created by scientists in chemical laboratories. But, whatever the source, the original raw materials came from the earth. The houses used by city people are built of wood, of stone, of iron and steel, of glass, and of brick. All these materials have come from natural resources. Brick is made from clay. Glass is made from sand.

This chemist in a laboratory is one of many who are trying to improve the synthetic fabrics we already have and to develop new ones.

Celanese Corporation of America



The major occupations followed by people in urban centers may be classified in five main groups. These are work in manufacturing, in commerce, in transportation, in government, or in services.

Making a living in manufacturing

What is made in a factory? The answer is "almost everything." Factories produce all kinds of goods. A factory may turn out cloth, clothing, processed foods, machines, or any one of many other products. Our way of life today depends in a large part on goods made in factories.

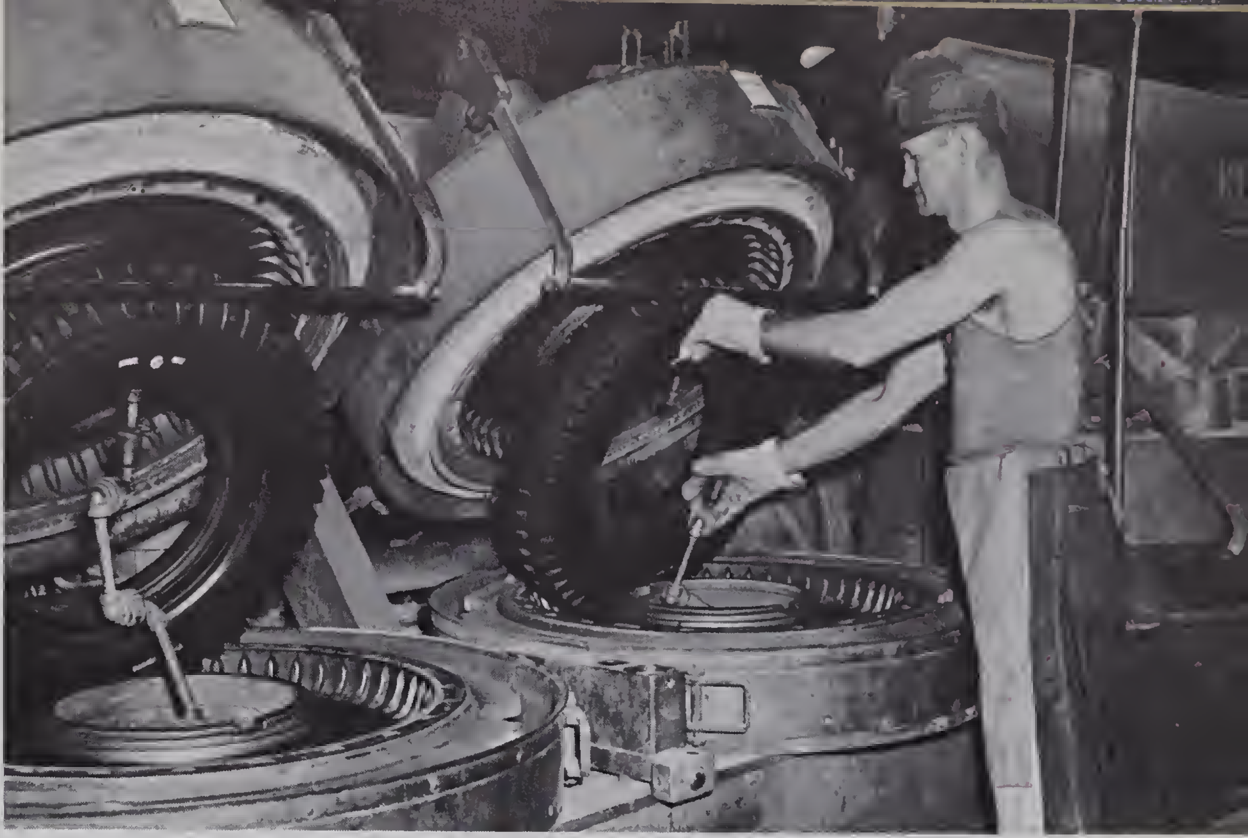
Who works in factories? Managers, packers, billing clerks, and other office employees, and the people who run the machines. In factories raw materials are made into finished goods or products. A raw material may be a bale of cotton from a farm in Texas. The finished product, made from this raw material, will be cotton cloth. The cotton cloth may be shipped to another factory, where it again becomes raw material. Here the cloth may be manufactured into shirts, or skirts, or dresses. Other examples of raw materials and finished products are wheat and flour, flour and bread, iron ore and steel, steel and rails, and steel and machines. The finished products of one factory often become the raw materials of another factory.

Many of the raw materials are natural resources or come from natural resources. Cotton and wheat are farm products which factories turn into cloth, bread, and cereals. Iron ore is an earth material from which iron is made in mills.

Manufacturing depends upon a number of other things in addition to raw materials. One of these is *capital.*

Capital is wealth in any form. Capital may be in the form of money. Or it may be an

Many people make their living by working in factories in our country. This man works in a factory in which rubber tires for trucks, buses, and automobiles are made.



Goodyear Tire and Rubber Company

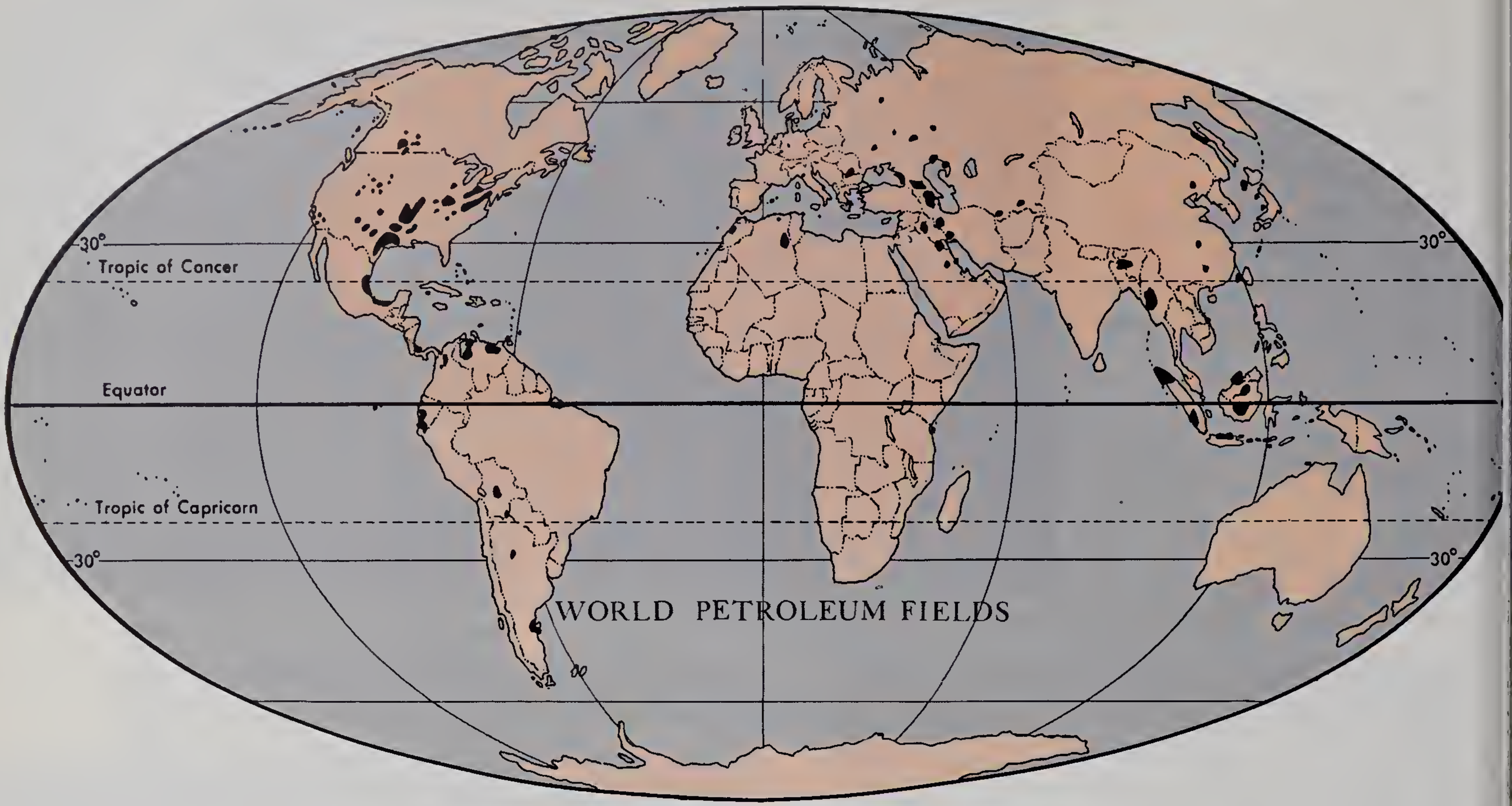
accumulation of goods used in the production of other goods. For example, the machines of a factory are part of the capital needed to produce goods, for the machines are used to make finished products. In manufacturing, capital is needed to build buildings, to buy raw materials, to buy machines, to replace worn-out machines, and to pay workers. The buildings and machines are part of the capital because they are used to produce goods.

Power is another essential in manufacturing. It may be furnished by man's energy, by animals, by coal, by water power, by gas or oil, or by electricity. In some parts of the world, factories are run by the power of the wind, which turns windmills. Electricity, the power used in many modern factories, is made from the energy of burning coal or of falling water. Today a few factories are run by atomic power. But, whatever the origin, all the power to run the machines of a factory comes from a natural resource.

The land on which a factory is built, with the parking lots that surround it, is another essential in manufacturing. Land is also used for the railroad tracks and the truck-loading lots needed by factories. Many modern factories are long and low because the finished product is put together, or assembled, on one floor. Raw materials are brought in at one end of the factory, and the manufactured product comes out at the other end. All of this takes space or land. There are some exceptions. Where land is scarce, as in great cities, the factories are in tall buildings, which cover only a small amount of land.

Labor is another name for the workers in a factory. Some work is done by the workers directly, that is, by hand. Some is done by machines, run by workers. Machines, which are part of the capital used in running the factory, enable the workers to do more work and to do it better.

Factories cannot operate without raw materials. The raw materials for a factory in the United States may come from close by, or from other parts of the nation, or from faraway places in the world. Sometimes the factories of one nation depend upon the raw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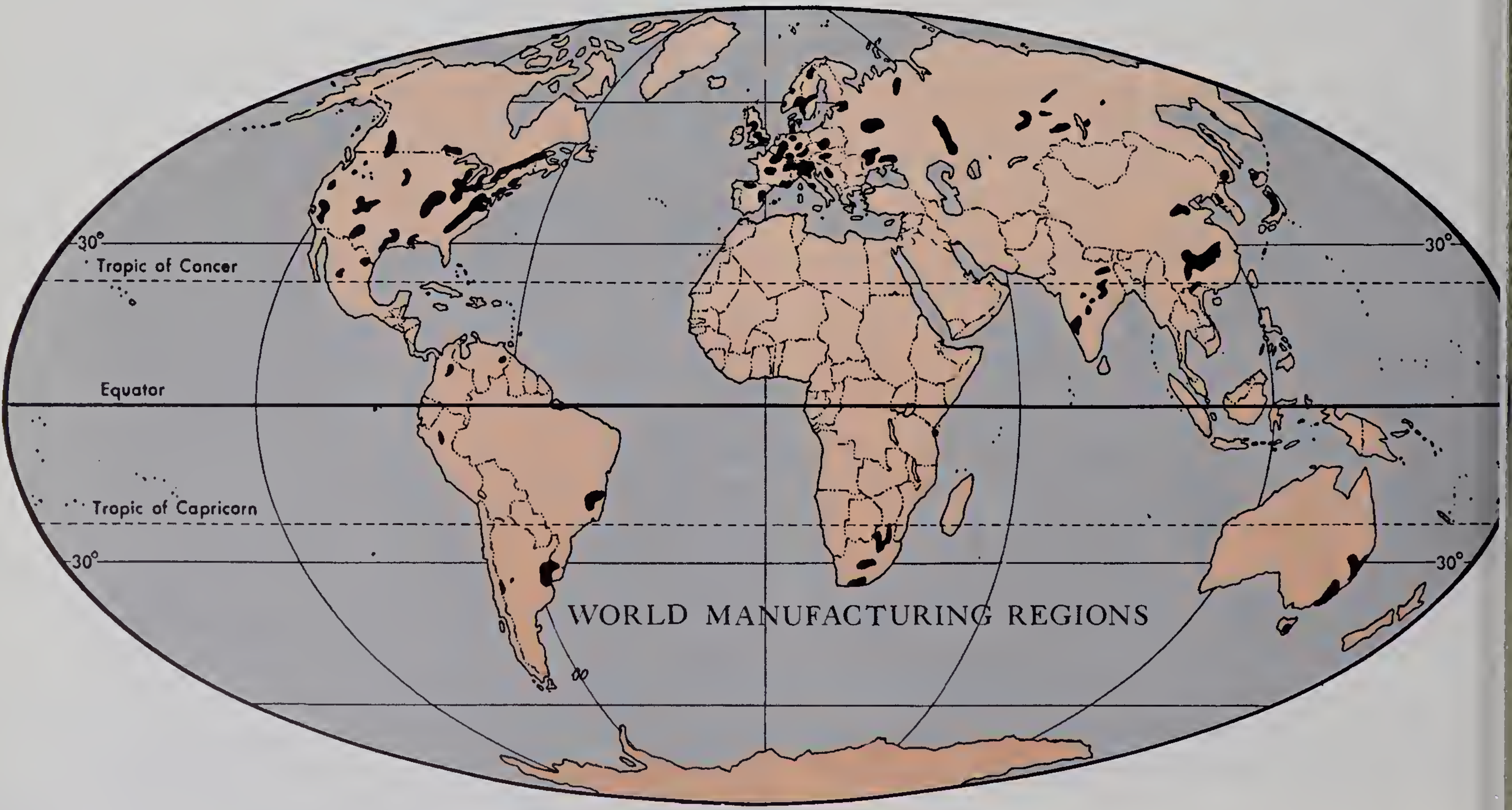
WORLD PETROLEUM FIELDS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WORLD MANUFACTURING REGIONS

materials of another nation. For example, the United States has little tin. The tin that we use in our factories comes from Bolivia, from Nigeria, and from Southeast Asia. Some countries have no oil. They get oil for their machines from the United States, Venezuela, or the Middle East.

Factories depend upon transportation. Some raw materials must be brought from faraway places. The finished products must be shipped to markets, some of them near, and some of them far away. All of this means a great deal of movement. Trains, trucks, and ships move the raw materials into the factories and carry away the finished goods. The goods are shipped to the merchants who sell them or to warehouses where they are stored until they are needed.

The shores of lakes, oceans, and navigable rivers are good locations for factories. Factories located on such waterways have a choice of water or land transportation. As you know, sending goods by water is cheaper than transportation on land. A factory located in an interior city which is not on a navigable river or lake can use only trains or trucks. A factory in a town that does not have a railroad has no choice of transportation. It must use trucks. Airplanes often are used by factories to carry light and valuable goods, such as watches. Planes may be used to deliver rush orders, which must reach a distant market quickly. In some far-off places, such as the mining country of the high Andes Mountains, airplanes even carry heavy machinery to the mines.

Making a living in commerce

Workers in *commerce,* which we also call trade, are employed in stores, offices, and warehouses. They are the people who distribute and sell the goods made in factories. A grocer sells some products that have come from farms. But most of the food he sells has first been processed. Some of the people in commerce work in warehouses. Here they unpack and distribute the goods to many stores. Thousands of people make a living in these ways. In some cities this kind of work is the most important in the city, and such a place is called a center of commerce.

Some kinds of commerce do not require buying and selling of goods. Instead, promises are bought and sold. For example, a fire-insurance company promises to pay the person who buys insurance on his home a certain sum of money if his house burns down. A company which sells stocks in order to raise the money to build a factory promises to pay the buyer of the stock some of the profits made by the factory. The stocks are sold to raise capital needed in building the factory. Thousands of people buy such stocks if they think the factory will make money. The money collected from the sale of stocks is used to purchase land, to build the factory, and to buy machines. The stockholders who have purchased the stocks receive a share of the profits from the factory when it produces goods.

Banks are part of commerce, too, and the people who work in banks make their living in commerce. The center of commerce in a town or city is in the main business district. But there are often small business districts at other points and shopping centers in the rapidly spreading suburban areas.

Making a living in transportation

Transportation is a most important part of our life. Some of the things we use may have been shipped halfway around the world. Transportation is necessary for manufacturing and for commerce.

Los Alamos Scientific Laboratory

These scientists of the Atomic Energy Commission are working for the Federal Government.

Think of how much of the area of a city is devoted to transportation. The total area occupied by streets and sidewalks is very large. City land is valuable, but much of it is used just for the purpose of transportation—to provide a means of moving goods or for people to move from home to school, or to the store, or office, or church. Because we depend so much on transportation, the labor of many people is needed in this activity. Most of them work on ships, barges, railroads, trucks, and cars. Some work in the air, piloting planes. Others work in subways under the ground. In very large cities subways are used both for passengers and freight.

Working for the government

Millions of persons the world over make a living in government work. In the United States there are many people who are employed by the Federal government. Others work for the states, the towns and cities, the counties, and for public corporations, such as the Chicago Sanitary District and the Port of New York Authority. Government agencies depend upon taxes from citizens. Public corporations are self-supporting.

Some government workers are elected by the voters. At the end of their term they must be re-elected if they are to continue their work. Others are in the *civil service.* Under the civil-service system professional and office workers are appointed to their jobs after having passed an examination. They remain on the job as long as they do their work well. Other persons are in the Army, the Navy, or the Air Force. Policemen, firemen, mailmen, and thousands of others work for the government.

The workers in the various kinds of government serve us in certain ways from the time we are born until the time we die. When a baby is born, a certificate recording the birth is issued. Before two persons can marry, they must obtain a marriage license, or written permission, from the state in which they are to be married. People who wish to enter certain businesses and professions must obtain state licenses. Persons who own automobiles must also obtain licenses. At the death of an individual a death certificate is issued and taxes are collected on the estate.

Working in the service occupations

Many people make a living in service occupations. Doctors, lawyers, teachers, secretaries, and other people who practice a profession for which they have been trained are in this group. Other persons who render services to the public are restaurant workers, barbers, beauty-parlor operators, bus drivers, and many others. These workers do not sell products. Instead they sell their services. All who work in the service occupations help to make life more pleasant and easier for us.

AN INTERDEPENDENT WORLD

From this we see that people in the work they do depend on each other. Nations are interdependent, too. No one nation has all of the natural resources it needs for its people to live well. The nations of the world must engage in trade if they are to survive.

As you will learn in the next unit, each nation depends on other nations for certain things. The people of no part of the world can live well today without securing raw materials from and selling products to their neighbors all over the world.

Do you know—

1. What does using a natural resource directly mean? Using it indirectly?
2. What must a factory have to operate?
3. What is a service occupation? Name three.

Words and Terms to Remember

alloy
labor
capital
commerce
water table
ferroalloy
wind erosion
civil service
unfailing resource
expendable resource
renewable resource

A Matching Game

Number a paper from 1 through 11. After each number write the word or term from the list above which matches the definition.

1. Wealth in any form used to produce more wealth
2. A resource which cannot be replaced after use
3. A system of selecting people for government work through examinations
4. The carrying away of topsoil by high winds
5. A resource which is so plentiful that it never runs out
6. A resource capable of replacing itself
7. A metal that is mixed with iron in the manufacture of a special kind of steel
8. The level of the ground below which the soil is full of moisture
9. The people who work in industry
10. The carrying on of business or trade
11. A metal that is a mixture of two or more metals

State of Ohio, Dept. of Industrial and Economic Development

Corn is a very important crop in the United States. It is a basic food for both people and animals.

3. WISE USE OF NATURAL RESOURCES

Natural resources are used to satisfy our needs and help us to live more comfortably. They have been used in these ways during the past, and they are so used in a variety of ways today.

CONSERVATION OF NATURAL RESOURCES

Conservation of natural resources means not only using resources wisely now, but also it means planning for their use in the future. Each generation has a duty to coming generations. For this reason, we should conserve our resources and replace them in every possible way.

Conservation of soil

Soil is an important resource because it is the chief means by which food is produced. For this reason, the soil must be used wisely and carefully. It must be protected from erosion, either by water in the rainy climates or by wind in dry climates.

The farmers of the Atlantic lands of Europe have practiced soil conservation for hundreds of years. They have added animal wastes to their soil, tilled it carefully, and kept steep slopes in grassy pastures and woodlands. If they had not protected their soil in these ways, it would long since have ceased to be productive.

The farmers of the Mediterranean lands of western Europe have not cared for their soil as well as have their Atlantic neighbors. They have tilled steep slopes and cut down woodlands, both of which have allowed much topsoil to be washed or blown away. Bare bedrock is exposed in many areas because the soil has been washed from above it.

Soil conservation in the United States began, in general, with the ending of the frontier. This meant that there were no vast new lands to which people could move when the soil in long-settled areas had worn out.

Many ways have been developed to conserve our valuable topsoil. Hilly or sloping fields should not be plowed up and down the slope. Doing so permits the water from rains to flow in rivulets directly down the hill, washing away the topsoil as it flows. Instead, the soil of a hillside should be plowed around the hill. Such plowing is called *contour plowing*. Contour plowing slows the rate at which water flows down a hillside.

Another way to prevent erosion is by building terraces on hillsides. A terraced hillside is one that is broken into a series of man-made steps. The lower parts of the terrace are planted in grass, and the top in crops or in vineyards.

Many hillsides have trees growing on them naturally. If these trees are allowed to grow, the soil is protected. The roots of the trees hold the soil together and keep it from being carried away by flowing water or high winds. Planting grass on the hillsides can help to hold the topsoil in place for the same reason. Dead leaves and forest litter also protect the topsoil.

Crops like corn or cotton, which are planted in rows and cultivated far into the summer, are dangerous to the soil of a steep field. The loosened soil washes away easily. Unless a hill is terraced, or contour-plowed and planted, it is well to plant the land in trees and grass. The trees yield fruit or nuts, and the grass provides pasture.

Farmers use *cover crops* to help stop soil erosion. A cover crop is one which covers the ground during the winter and protects it from heavy winter rains. A cover crop, such as oats, is planted in the fall. The oats spring up and grow high enough before winter comes to cover what would otherwise be bare ground. In cold climates the winter blanket of snow protects the soil, acting as a cover crop does.

Running water often cuts a gully in an eroded field. Each rain then widens and deepens the gully and further destroys the soil. In time, the field loses its productivity. Gullies should be planted in grass or in quick-growing trees. If the gully is large, small dams must be built at the bottom to slow the flow of the water. After a time, the steep sides of the gully may be planted in grass or trees.

The most serious loss of topsoil is due to *sheet erosion*. Sheet erosion, which is caused by a sheet of water flowing across a gently sloping field, removes the topsoil. Over a period of years sheet erosion can remove nearly all the valuable topsoil. The process has been so slow that it may have gone unnoticed. In contrast, however, a new gully on a steep hillside is noticeable at once.

With sheet erosion most of the topsoil finally disappears, and the less fertile *subsoil* beneath is exposed. The subsoil is different in color from the topsoil of a region, because it does not contain *humus*. Humus, which is the decayed vegetation in the soil, gives the topsoil a darker color than the subsoil has. If you have seen a plowed field with patches of lighter color here and there, you have seen an example of sheet erosion. The light patches are the subsoil, which is beginning to show because the topsoil has been removed. Land which has this kind of erosion should be planted in grasses to help hold the topsoil in place.

The damage done by wind erosion is evident. When a dust storm occurs, everyone knows it. The only sure way ranchers have to prevent wind erosion is to plant their land in grass. Such pastures should not be used by too many animals. If they are, the grass will be eaten to the roots and trampled into bare spots in places. Then the exposed soil will blow away. In deserts, which are not covered with vegetation, the soil always blows away. For this reason, heavy pebbles, which are too heavy to be blown away, lie on the surface of most deserts.

The Soil Conservation Service is an agency of the Federal government which helps our farmers fight soil erosion. Many other people help, too. The state agricultural colleges, where the latest methods of farming are taught, the county agents who help farmers in each county, the forest service, and others aid the program. The government gives farmers advice about putting their land into soil-conserving crops.

Conservation of forests

Northern China is a cold land in winter. In ancient times, the people cut down their forests and used the wood. They did not plant new trees. Instead they cultivated the steep hillsides where the forests had grown. This led to some of the most serious soil erosion known in the world. Today the people of the region have no forests. They have little or no wood.

The great river which flows through the region is the Hwang Ho, or Yellow River. The river is yellow from the soil it removes from the hilly fields. When the river reaches the sea, its waters carry the yellow mud out into the sea. The sea is called the Yellow Sea. The Chinese hill people of the past did not practice conservation. Their farming descendants now have a hard time earning a living from the soil.

The Germans practiced conservation from the days of the Middle Ages. They left steep and mountainous lands in woodlands. Today

A conservation expert explains various technical soil maps to a group of farmers. With the help of these maps the farmers in these districts will begin to develop soil conservation programs.

Soil Conservation Service

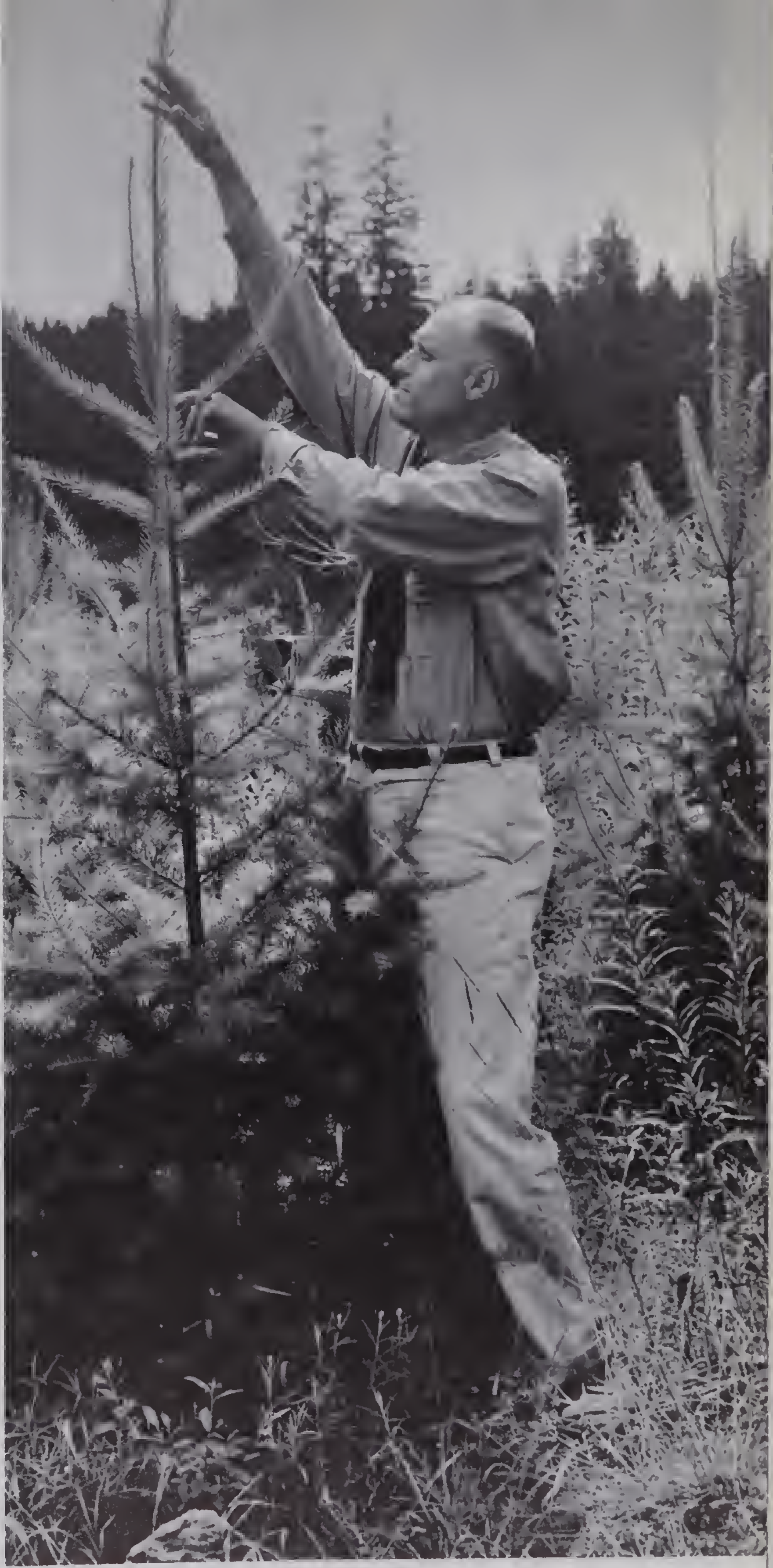
many small mountains in Germany are so covered with woods that they are called forests. For example, the Black Forest and the Bohemian Forest are really mountain ranges, covered with trees.

The Germans planted trees on some of the sandy lands in northern Prussia. These developed into forests. Some of these are among the finest forests in the nation today.

Foresters and their helpers cared for the trees as if the trees were in a park. The trees were trimmed and dead wood and dead branches removed. Fertilizer was added to the sandy soils of the north to help the trees grow better and yield more wood. Thus the Germans were wise enough and thrifty enough to leave their descendants a fine forest resource. Germans today still care for and maintain this natural resource.

The large-scale conservation of forests and woodlands in the United States began during the term of President Theodore Roosevelt. President Roosevelt and Gifford Pinchot led in the conservation movement. They told the people how important conservation is to our nation. Their work resulted in the setting aside of many forest lands as national possessions. Today the United States Forest Service controls these.

Most of our national forests are in the mountains of the West, because the government owned these lands. Idaho, California, Montana, Oregon, and Colorado have the largest areas of national forest lands. Other large government forests are located in the Appalachians, in the region of the Great Lakes, and in the South. For these, the government purchased the land. Forty-two states now have national forest lands. Some states own forests. There are also a few county-owned, city-owned, and school-owned forest lands.



U.S. Forest Service

In Olympic National Forest, Washington, a member of the forest service shows how one of the young trees on a Douglas-fir plantation has grown 30 inches in a year.

USDA Photo

Forest fires like this are a great threat to one of our resources. It takes years to replace a forest. Our government enforces strict rules to prevent such fires.

Persons are employed to guard and protect the forests. Fire must be prevented, for a fire once started may devour a whole forest. One of the chief duties of a forester or forest ranger is to spot fires, whether started by lightning or by human carelessness, and to put them out. Some duties of his are to guard against plant diseases, insect pests, and other enemies of forests. To be a forester is an important occupation in our country.

Conservation of game and fish

You are probably familiar with groups of men who have formed clubs to work for better hunting and fishing. These clubs are interested in the protection of game and fish. They are interested in the preservation of woodlands in which wild animals are sheltered. They work to get game and fish laws passed which prohibit the killing of young animals or the catching of small fish. Unless a certain amount of game and fish are permitted to grow to full size, these wildlife resources will disappear. We have seen what happened to the passenger pigeon and what nearly happened to the bison. The wild turkey, which was an important source of food for the Indians and the early colonists, was almost destroyed by hunters, too.

How are game and fish conserved for future generations to enjoy? The United States Fish and Wildlife Service and state conservation commissions are the agencies which look after game and fish.

Because of our nation's greatly increasing population many states have set aside large blocks of land, called wildlife preserves. On these no hunting is allowed. From them animals and fish are distributed to near-by areas. State conservation commissions allow hunting and fishing to be done only at certain times of the year. Individuals must obtain licenses if they wish to hunt or fish. The Federal government, the government of Canada, and the state governments protect the breeding grounds of wild ducks, wild geese, and other birds. Fish hatcheries have been set up, and young fish bred in the protected places are later distributed to streams and fresh-water lakes.

In most European countries conservation of game and fish has been carried on for a long time. There are fewer hunters or fishermen in Europe because in these lands the game belongs to the landowner. Hunters must have permission to hunt, and the animals shot there belong to the landowner rather than to the hunter. As a result, game and fish are quite plentiful except in the crowded Mediterranean farm lands.

Conservation of fish extends even to some fish in the ocean. The salmon of our Northwest, of British Columbia, and of Alaska lay eggs in the fresh water of rivers. After living in a stream for a time, the young salmon swim to the sea to live until fully grown. They then return to the fresh-water stream where they were born, to spawn, or lay eggs. The journey may take several months.

Some of the dams built on the streams in recent times have blocked the passage of the salmon as it swims up the river to its spawning grounds. At Bonneville Dam, on the Columbia River, and on some other large dams, the government has built fish ladders. A fish ladder is a set of steps built in the river to help the salmon in its journey up the river. By jumping from step to step, the salmon can reach the top of the dam and thus reach the waters back of the dam. At other dams there are elevators which lift the fish to the top of the dam. Near most of the large dams salmon hatcheries have been built where the salmon eggs can be hatched in safety.

After the eggs have been hatched and the young fish have grown to a certain size, they are put out in the river for their swim to the ocean. In these ways, our government sees that the salmon are saved.

U. S. Fish and Wildlife Service

Wild geese from Canada visit this refuge in Utah each year. They arrive in October and stay until freezing weather comes. Then they fly southward.

Oregon State Highway Dept.

This view of the Columbia River, taken below the Bonneville Dam, shows the fish ladders, or steps. The ladders carry the salmon safely around the dam to their spawning grounds. Why is the conservation of wildlife so important?

In the salmon fisheries on the ocean and bays, another kind of conservation is practiced. By agreement between Canada and the United States no fishing is done on Saturdays and Sundays. In this way, even if all the fish heading upstream to lay their eggs on Mondays through Fridays were caught, the fish which are swimming during the week ends would be able to reach their spawning grounds in safety.

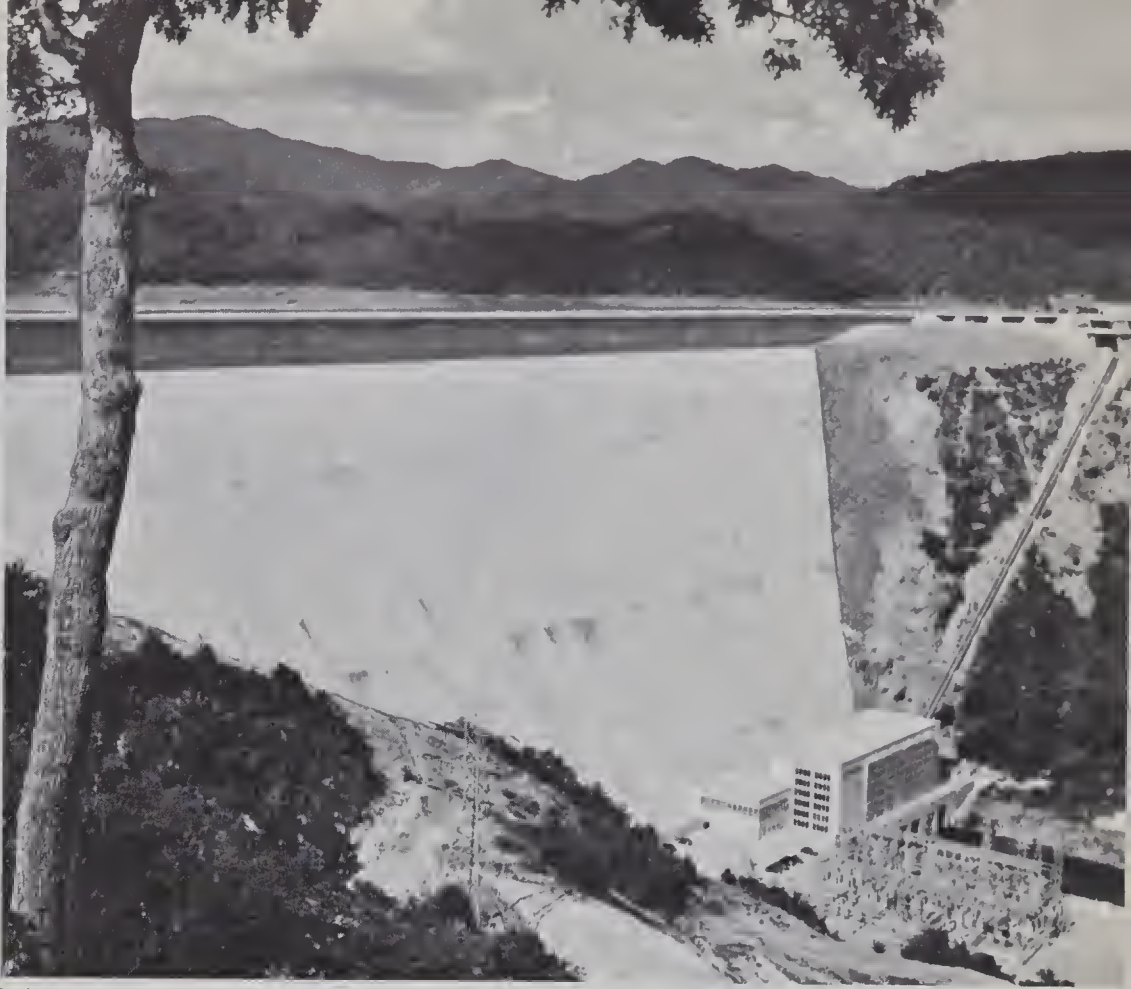
Conservation of water

The conservation of water in the ground and on the surface has become increasingly important all over the world. In the past, conservation of water was practiced only in the dry climates and in the Mediterranean climates. During the rainy winters the peoples of the Mediterranean climates have to store water for use in irrigation during the dry summers.

The people who live in the parts of the world which receive plenty of rain are fortunate in their water resource. They do not need to practice irrigation. Farmers can drill wells and reach water easily. Most cities in such areas can obtain a supply of water from wells, rivers, or lakes. But in recent years the growth of large cities and the great quantity of water they require changed the situation. The supply of underground water is no longer sufficient to meet their needs. Near some cities the water table has dropped alarmingly. Small streams have dried up because the rains have soaked rapidly into the ground to replace the ground water depleted by city use. Some large cities, even though built on rivers, cannot obtain all the water that they need from those rivers.

Today a few large cities have to bring water over a distance of hundreds of miles. Water is piped to Los Angeles from the

The Fontana Dam, shown here, is the highest dam of the Tennessee Valley Authority. This Federal project was organized to control floods and to provide electrical power for the people of the Tennessee River Valley.



TVA Photo

Sierra Nevada and from the Colorado River. New York City obtains its water supply from near-by regions and also from the Catskill Mountains. The long-distance piping of water has made people aware of the need to conserve this natural resource. It has also resulted in an increase in the cost of water. From time to time the water has been used faster than it has accumulated. New York City has at times had a water shortage.

The largest supplies of fresh water in the United States are found in the Great Lakes. The cities on the shores of the lakes are fortunate in this. Recently, nearly all of the factories which use tremendous quantities of water in their manufacturing process have been built on the shores of lakes.

Conservation of mineral resources

Minerals, as we know, are among the exhaustible natural resources. Conservation of minerals means their wise and efficient use. It also means the use of substitutes. For example, synthetic materials like plastics have replaced metals in some ways. A nation may also conserve its minerals by using low-grade mineral deposits, instead of high-grade ones, wherever possible. Some deposits of iron ore contain only 30 percent of iron. Such low-grade deposits are used successfully when the coal used in the smelting can be obtained cheaply. Still another way to conserve minerals is through better methods of extraction and better methods of refining or of smelting. This is possible in the United States because of the work done by scientists and engineers. For example, with modern methods, the piles of waste rock around the copper mines of northern Michigan have been reworked and more copper has been extracted from them. Our oil wells pump more of the crude oil from the ground than was the case in the past. Modern oil refineries obtain a greater amount of gasoline and other products from the crude oil than was once done. All of this means conservation of valuable minerals.

We can divide the mineral resources of the world into three classes. These are the mineral fuels, the metals, and the nonmetals.

Mineral fuels, such as coal, oil, and natural gas, disappear when they have been burned. Conservation of mineral fuels means the use of better methods of extraction and refining. In our modern world the mineral fuels have also become the raw materials of factories. For example, synthetic rubber is made from both coal and oil.

Recently some low-grade iron-bearing rock has come into use in Minnesota. The name of the rock is *taconite*. Although taconite is not rich in iron, the supplies of this rock are so abundant as to make it worth while to work them. Taconite is so hard that new methods to drill into it had to be devised. The railroad cars and trucks that handle it had to be built of the toughest steel. Taconite is ground to the fineness of flour. Then the iron particles are removed and made into small chunks, or pellets. The pellets are then shipped to blast furnaces, where they are used in place of iron ore. Taconite helps us conserve our high-grade iron ores by making use of low-grade ores. However, there are no substitutes for the important ferroalloy, or iron and steel, metals.

Iron pellets are taken from a blast furnace. They come from taconite, a rock which has a low-grade iron ore scattered all through it.

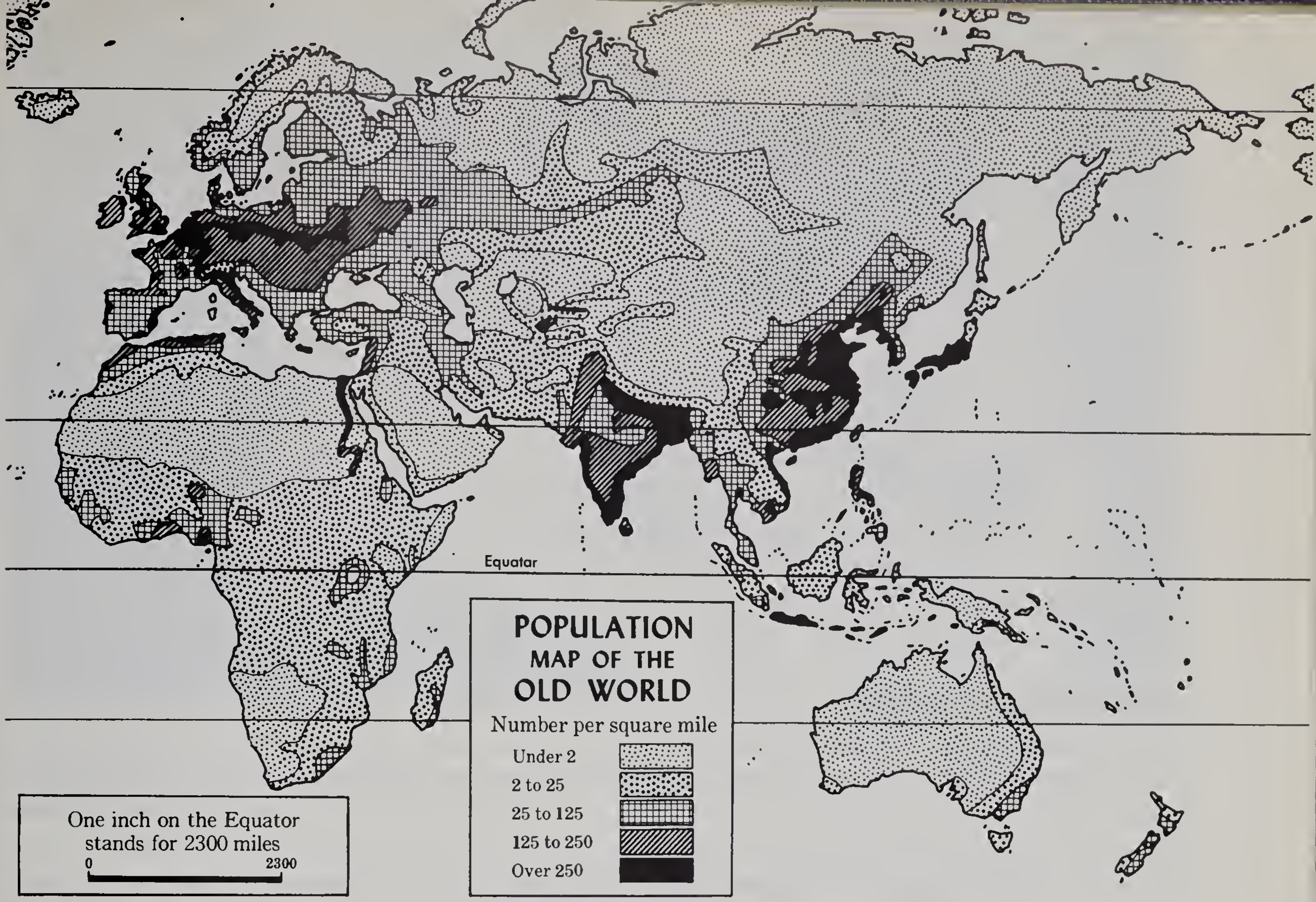
Bureau of Mines, U.S. Department of the Interior

Some minerals are quite abundant. Salt, for example, is mined as rock salt in deep mines. But salt can also be obtained by the evaporation of the salt water of the sea or of a salt lake such as Great Salt Lake, in Utah. The salt of a mine is an exhaustible resource. The salt of the sea is inexhaustible.

In times of war minerals are used in great amounts. During World War II, thousands of tons of iron and steel, copper, and other minerals were used in making war machines and shells and in building ships. Other war materials were shot away, lost at sea, or left in such distant places as small Pacific islands, never to be recovered or reused. Wars are one of the greatest enemies of conservation. Not only are minerals used in quantity, but shell-torn battlefields also experience soil erosion. Forests, too, are depleted in war times, and wildlife is slaughtered or dies from lack of a natural shelter. In addition to the loss of natural resources in war there is even greater waste of human resources—losses in life, in limb, or in health.

Do you know—

1. How does contour plowing help to save the soil?
2. What are the duties of a forester?
3. Why is it important to save water?
4. What is taconite? How does it help conserve high-grade ores?



4. THE IMPORTANCE OF HUMAN RESOURCES

People are the world's human resources. The people, their health, safety, and abilities are the wealth of a nation and of the world.

The people who make up any nation are held together by common purposes under a single government. Some of the citizens are young. Others are old. Some persons are strong and healthy. Others are disabled or are ill. Some people are skilled and have had a fine education. Others have had but little training. People have different possibilities and face different problems. But together they form the human resources of the nation, and they are part of the human resources of the entire world.

THE DISTRIBUTION OF POPULATION

The map on page 52 shows the places in the world where people live. From it you can see that some areas are more densely populated than others.

Areas of dense population

Four very large areas of dense habitation are found in the world. Three of these areas are in the Far East. They are in China, in Japan, and on the subcontinent of India. Find these densely populated areas on the map of the Old World above.

A fourth area of dense population is found in western Europe. The people who live in the thickly populated part of western Europe earn a living mainly by working in factories. But there are many farmers, also.

Three smaller areas of dense population are found on the island of Java, the Nile Valley in Egypt, and the eastern part of the United States. Except for small regions, no area in the United States is as thickly populated as western Europe is. The five small countries of the United Kingdom, West Germany, the Netherlands, Belgium, and France have almost as many people together as the United States. Because our country covers a much larger area, our population densities do not equal those of western Europe.

Areas of sparse population

The largest areas of sparse population are the cold lands and the deserts. Find some of these areas on the population map. The continent of Antarctica, a land of ice and snow, contains no permanent residents.

Average densities

Most of the world has a population density that is less than that of the very thickly inhabited areas and more than that of the sparsely developed lands. However, some of these areas with an average density of population are supporting about as many people as they can.

DEVELOPED AND UNDERDEVELOPED LANDS

Several nations of the Middle East and some lands of Africa are underdeveloped lands. This means that, compared to more progressive countries, these nations lag behind. Their people are uneducated and untrained. Diseases afflict many of them. Neither the human resources nor the natural resources are used to the fullest. Poor farming methods result in poor yields of crops, even on good soil. Many cannot read or write. It is difficult to help farmers and other workers who cannot read directions.

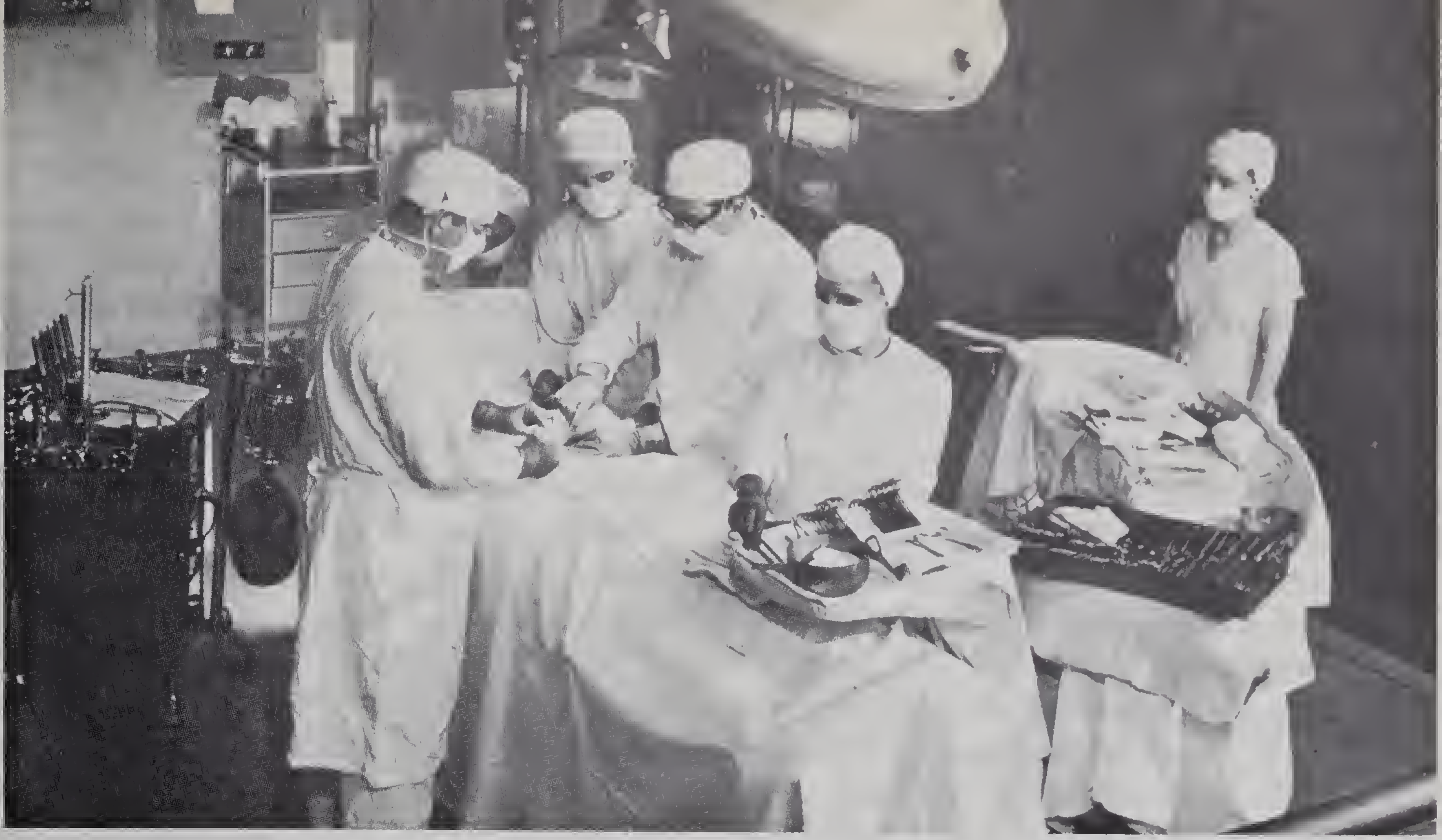
In general, the more highly developed lands are those which are thickly populated or which have an average population density in the Western world. However, Japan and some other Oriental lands are also highly developed. The regions of average density in the United States are as highly developed as the thickly populated regions are.

The nations of the Western world have developed their natural resources more highly than have most other parts of the earth. These nations have also used some of the natural resources of underdeveloped areas. In so doing, however, they usually help the people of the area also. For example, the discoveries of oil and iron ore in Venezuela brought new ways of living to that Latin-American country. The money paid to the Venezuelan government by the foreign companies who own and operate the mines has been used to build new roads and schools in Venezuela and has raised the standard of living there.

All parts of the world, except those like Antarctica and the interior of Greenland, have developed their natural and human resources to some extent. But some areas lag because their people have not been trained to make the best use of their lands, waters, forests, minerals, and their human resources. As a result, their people do not have as high a standard of living as they should be enjoying.

Do you know—

1. What four large areas of the world have very dense populations?
2. What is an "underdeveloped" nation?



Roger Coster from Rapho-Guillumette

Saving human life is an important means of conservation. Here skillful doctors and nurses in a hospital use delicate instruments and modern drugs to save lives that would once have been lost.

5. PROTECTING AND DEVELOPING HUMAN RESOURCES

The people of the world have physical needs, social needs, educational needs, and cultural needs. Let us consider these needs.

PHYSICAL NEEDS OF PEOPLE

In the United States we believe that a major purpose of our national government is to promote the general welfare of the people. The phrase "promote the general welfare" is used in the preamble to our Constitution. We believe that the government should serve the people in many different ways.

Promoting the general health

Promoting the health and safety of people is important in the development of the human resources of a nation. Let us see how governments are able to serve their people in these respects.

A supply of pure drinking water is essential to health. Our national, state, and city governments spend millions of dollars each year to develop and to protect our water supplies. Chemists and other workers test the water of farm wells and of city water systems to insure the purity and cleanliness of the water. Unclean and contaminated water is a carrier of disease germs. Our water supplies are treated in reservoirs and tanks before the water is released into the water systems which distribute it to homes and factories. Inspectors check the pipes which carry the water. This is to guard against leaks and to detect places where untreated water from the outside might enter the city supply.

The disposal of waste materials is undertaken by government agencies. City governments build sewage systems. The sewage of the city can be channeled through these systems to plants, where it is purified and made safe for discharge into large streams, large lakes, or the ocean. This is necessary so that the sewage of a city situated on a river will not contaminate the river and endanger the water supply of a town farther downstream.

In cities and in most small towns garbage is collected by city workers or by private companies. The garbage must be disposed of in such a way that human health will not be endangered. In most cities it is burned. Some cities on the seacoast load the garbage into barges. Tugs pull the barges out to sea, where the garbage is dumped. It is soon eaten by fish. Some cities maintain pig farms far from the centers of population. The garbage is hauled there and fed to the swine.

Government agencies—Federal, state, and city—look after the purity of our food supply. Meat is inspected at the packing plants, and an official stamp is placed upon it. This certifies it as fit for human consumption. Meat markets, grocery stores, other food stores, and restaurants are inspected. The inspectors see that only pure food is offered for sale and that the store or restaurant is clean. Particular attention is paid to the way in which the dishes are washed. Hot water must be used to help destroy germs. The restaurant workers themselves must practice habits of cleanliness.

Milk is inspected at every stage from the dairy farm until it reaches the market. The dairy farmer must keep his cows, his farm, his hands, the milking machine, and the milk pails clean. Milkhouses, where the milk is stored until picked up by the dairy trucks, must be clean and cool. Refrigeration must be provided. The city dairy inspectors see that bottles and the bottling plants are clean and free of germs. In these and in many other ways our food supply is protected from contamination.

The United States government enforces pure-food laws. These laws protect us from impure or badly prepared foods. They also

U. S. Dept. of Health, Education, and Welfare

These inspectors for the United States Food and Drug Administration are inspecting cosmetic jars to see whether they have been properly filled and labeled. They also check foods and drugs for purity of content.

require that the packer must correctly label the contents of packaged, frozen, or canned foods.

You have probably noticed statements such as "artificial flavor" or "process cheese" on cans or cartons. This means that if an artificial flavor is used it cannot, under our pure-food laws, be passed off as natural flavor. Most of these products are good foods, but the public is protected against incorrect labeling.

The general health of the people is looked after by health departments, which are usually maintained by the city or state. The health departments try to prevent disease and epidemics. If a disease does break out, they help to prevent it from spreading. Vaccinations against diseases are given to school children. Health and dental programs are carried on in the schools. Baby clinics are maintained. Advice and help are also given to adults. Health departments keep birth and death records and records of serious diseases.

This department, or its subdivisions, is usually charged also with conducting the food, restaurant, and store-inspection services. Other places where the health of the people might be endangered by uncleanliness, such as barber shops and beauty parlors, are also inspected.

Many other agencies help to promote the general health of our people. There are societies which work with persons who have tuberculosis, cancer, heart disease, and other ailments. There are visiting nurses who help people to understand the meaning of sanitation and the need for good health habits. The Red Cross is ready to aid in all kinds of disasters, such as fires, floods, tornadoes, and explosions. The work of this society includes looking after the health and welfare of the victims of such disasters. Departments of home economics in schools help educate people in the value of proper foods.

The Federal government has a Department of Health, Education, and Welfare. The activities of this department, which are summed up in its name, include many aspects of "promoting the general welfare" of the people of the United States.

Health in underdeveloped lands

One of the greatest problems in the underdeveloped lands is the health problem. Because of lack of education and because of ways inherited from the past, many people on the continents of Asia, Africa, and South America do not know of modern sanitation. Sewage and garbage are left in the open and attract insects. Food is often contaminated. Drinking water is impure.

The people of underdeveloped lands often do not know about the value of *nutrition,* or how different foods nourish the body. They eat too much of one food, too little of another. Their diet is not balanced. This leads to illness, even though the quantity of food eaten may be enough. The children may have bulging stomachs, a sign of *malnutrition,* or lack of proper nourishment. Their legs may be bowed because of malnutrition. Some cannot even walk.

The lack of sanitation leads to the existence of many disease-carrying germs and insects. The germs infect the people who drink impure water. Insects, particularly certain kinds found in the tropics, spread disease. Yellow fever and malaria, two tropical diseases, are both carried by mosquitoes. The control of yellow fever and malaria depends upon getting rid of the mosquitoes. If pools of water, marshes, and other wet places where the mosquitoes deposit their eggs are sprayed, no mosquitoes are hatched.

Unfortunately, in many underdeveloped areas the very ponds used to supply water to people and cattle are the breeding grounds of mosquitoes.

The people of some underdeveloped lands have diseases caused by animal and insect life. For example, many persons in central and western Africa have a disease called sleeping sickness. But, as we have learned, it is difficult to get rid of the tsetse fly, for it often buries itself in the ground, where it is not reached by sprays. Moreover, the disease also seems to be carried in certain stages by wild animals, such as monkeys. Therefore, both the natural vegetation and some native animals must be destroyed to clean up breeding areas of the fly.

Protecting the people

Government agencies, private organizations, and international organizations help protect and care for the people. Our police and fire departments are usually maintained by the city governments. Sheriffs are county officers, and state police are state officers. The Federal Bureau of Investigation, or F.B.I., is maintained by the Federal government. An organization such as the National Safety Council conducts safety education to prevent accidents.

The protection of our people takes many forms. Accidents represent a waste of human resources. Each day in our own country hundreds of people are killed, or crippled, or lose precious days from their work, because of accidents which might have been prevented. Our safety programs in school, in towns and cities, and in the nation are aimed at preventing loss to individuals and to the country.

Crime often results in great loss to life and property. Crime and the conditions which cause crime represent a waste of the human resources of a nation. Many persons are employed in police and detective work to prevent crime and to catch criminals. Criminals, of course, are not productive members of society. Therefore, there are agencies which try to stop crime at its source. They try to help the individuals who have gone astray. They build clubs and athletic fields to keep persons busy and happy and to help keep gangs off the streets.

Unfortunately, some people are deaf, blind, or have been disabled by accidents. Government and private groups help to train these people to become useful members of our society.

EDUCATIONAL NEEDS OF PEOPLE

A wise government promotes programs of education. An educated and trained people will use their natural resources to advantage and will have a good standard of living. They will be a valuable resource to their nation and to the world. Even a country which is rich in natural resources will remain poor if its people are ignorant and unskilled.

Learning comes through experiences in the home and in the community. But educational training takes place in the schools of a country. Children in the United States and Canada, in western and northern Europe, in Australia, in New Zealand, in Japan, and in some other countries take schools for granted. Many children in the world, however, live in countries where there is little or no schooling. In such lands the abilities of many persons are not developed.

As a result these nations have suffered. For example, at present only about three persons in a hundred in Saudi Arabia have received an education. Saudi Arabia has to depend upon people from the United States and Europe for scientific and technical work in its oil fields. When the government of Iran took over the foreign-owned oil fields and refineries of that nation, it could not find enough trained Iranians to man them. Finally, Iran had to invite back the foreign engineers to run the oil industry.

Education and progress

Until about one hundred years ago most colleges were supported by churches. Many of the early Virginia planters hired a schoolmaster to teach their children in their own homes. Some neighboring children might attend the school also if they did not live too far away. In early New England small children attended a dame's school, taught by one of the women of the village, often in her own kitchen. The children learned reading, writing, spelling, and arithmetic.

By the 1850's, however, most of the states had accepted the idea that every child should receive a free grade-school education. A further step toward free education was taken when public high schools were established. The first one in the United States was opened in Boston in 1821. Colleges were established in the colonies, the first ones being supported by churches. But in 1819 the University of Virginia was founded. This was the first state-supported university in our nation. By 1850 there were sixteen state universities.

The idea that our government is responsible for the education of its people has now been accepted. About 36,305,000 young people now attend our public schools.

Running the schools in our nation is the responsibility of the local and state governments. The United States gives more time, money, and effort to the education of its children than does any other country in the world. Pupils must go to school until they have reached a certain age, usually sixteen years. The Federal government helped in the establishment of the public schools. When the public lands of the United States were sold to pioneers and others, one square mile of every thirty-six was set aside as a "school section." The money paid by farmers who bought this land was then used by the local government to establish a school.

Schools are maintained by some churches. In parts of the United States there are many private schools. The parents of pupils who attend such schools pay tuition for their children's education.

The rapid development of the United States has been due in no small part to our system of education. A person who cannot read and write in our country is rare indeed. Our census shows that only 2 per cent, or two in one hundred, of our people are unable to read. Actually the figures indicate a lower percentage among native-born citizens than among the foreign-born.

More than 3,610,000 students attend college in the United States each year. The number is rising year after year. Many colleges are supported by the states and by churches. Others are private colleges. There are some colleges supported by city taxes.

The Federal government helped to establish certain state schools, known as *land-grant colleges.* About one hundred years ago Congress gave grants of land to the states. The lands were to be sold and the money so raised was used to establish colleges where farming and mechanical arts (now called engineering) were taught.

Despite our good school system, some persons leave school to take jobs as soon as the law permits them to do so. Many capable high-school graduates do not go on to college. This is a loss to them and to the nation.

Adult education

Our educational system includes programs for grown-ups. Evening schools are provided by many towns and cities. In these a person who works during the day can continue his training and education at night. A person who left high school before graduation can return to complete his work in an evening school. There he can earn a high-school diploma. Many evening schools also help immigrants who have come to our country. They teach the English language, the ways of democracy, and the duties of citizenship to immigrants to help them pass the necessary tests to become United States citizens.

Adult education is carried on, also, by *correspondence schools* and *extension classes* and services. In the correspondence school the student learns by mail. Each lesson is written out and mailed to the school. A teacher corrects it and writes a letter, pointing out the student's mistakes. The letter also guides him in his work on further lessons. In extension work, a teacher from the school drives to another town to teach classes there. Thus the school is extending its services beyond the school buildings.

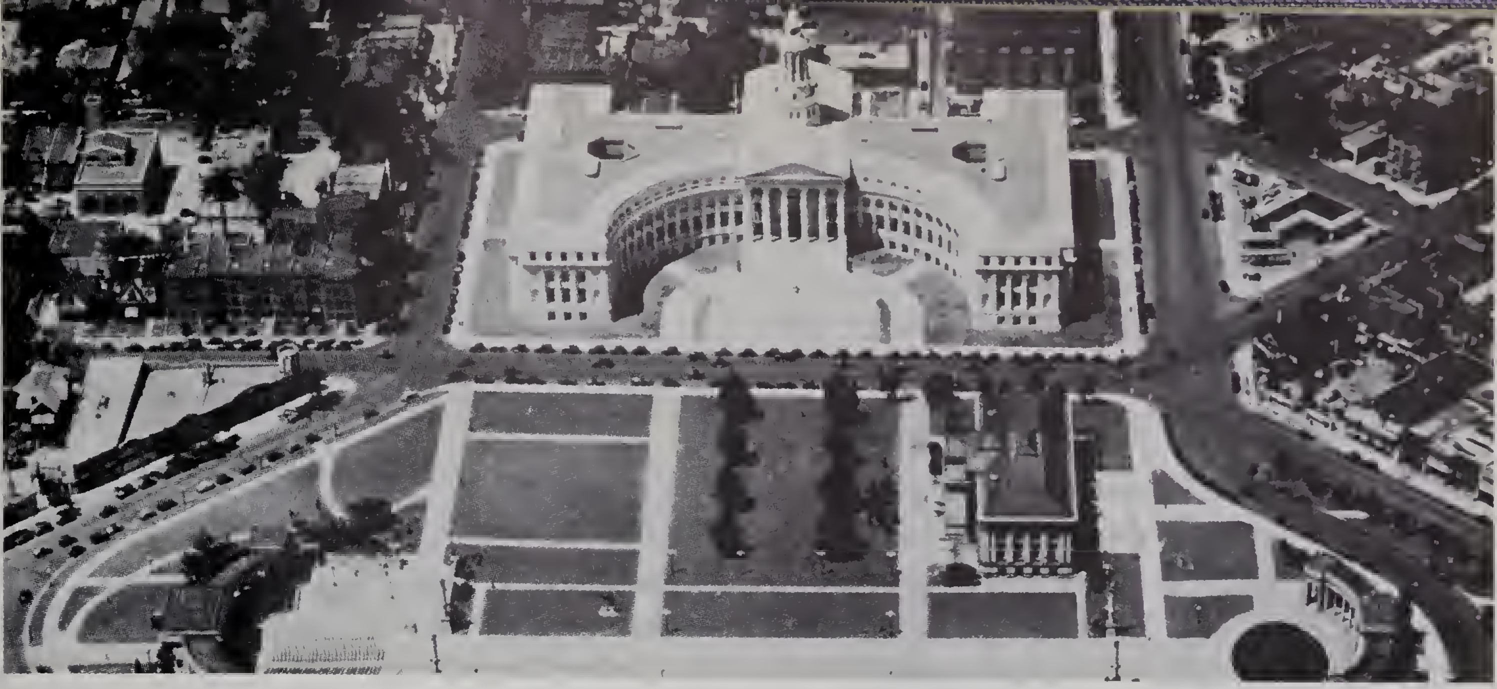
There are hundreds of opportunities for a person to continue his education and learning after he has left school. Public libraries in nearly every town are open to all. The libraries send bookmobiles to outlying areas. These traveling libraries reach readers in rural regions and in small villages.

Good citizenship

Our many ways of education train us for professions, for jobs, and for enjoyment of our leisure time. Education trains us for good citizenship. People who live in a democracy must be educated. Democracies depend upon well-educated people for their very existence.

U.P.I. Photo

Good citizens show their interest in government by voting in elections. After marking his ballot in a private booth the voter folds it and puts it in the ballot box. After all the voting is done, the box will be opened and the ballots will be counted. Voting machines are used in many places today instead of paper ballots.



Black Star

These buildings are part of Denver's modern and beautiful civic center. The large building is the City and County Building. The smaller one, in the foreground, is Denver's public library.

SOCIAL, CULTURAL, AND RELIGIOUS NEEDS

The people of the world need and enjoy social, or human, contacts. They also enjoy cultural contacts. Nearly everyone is a member of some religious body. The clubs, organizations, theaters, art galleries, opera houses, churches, and synagogues contribute to the social and cultural needs of people. Even the most isolated peoples in the least-developed parts of the world get together for social gatherings and for worship.

Large art galleries, opera houses, symphony halls, and theaters where live actors appear on the stage are chiefly confined to the great cities. Such cultural exhibitions are costly. Only in the large centers of population can these expenses be borne. In many European countries such cultural organizations are supported in part by the governments as a service to the people.

Productive hours of leisure

Machines now do the work of many men in the western world. These machines have released workers from long hours of labor. The worker in our nation now has more leisure than his early ancestors, or even his father, enjoyed. Labor-saving devices in the home have released the homemaker from long hours of labor. These machines have helped conserve her time and energies.

The increased amount of leisure time can be used to their educational advantage by the people who have the desire to do so. The development of hobbies is one result of the increased leisure time.

INTERNATIONAL CO-OPERATION

A strong and free world depends upon its people. A better world will come about when the present underdeveloped countries have well-trained people who know how to make good use of their natural resources.

You will learn in the next unit how the better-developed countries have undertaken to help the less-fortunate lands.

Do you know—

1. How do governments promote the health of their people?
2. Why are accidents and crimes called enemies of human resources?
3. Why must a democratic nation educate its people if it is to remain a democracy?

TO HELP YOU LEARN

Words and Terms to Remember

humus
subsoil
taconite
cover crop
nutrition
malnutrition
sheet erosion
extension class
contour plowing
correspondence school
land-grant college

A Matching Game

Number a paper from 1 through 11. After each number write the word or term from the list above which matches each definition.

1. A college established with money raised from selling public lands
2. The process by which the body is supplied with proper foods for promoting growth and replacing worn tissues
3. An institution where students may learn lessons by mail
4. A lack of proper nourishment
5. A class taught by a teacher in another town besides the one where the college is located
6. Decayed vegetation in the topsoil
7. The washing away of topsoil by water flowing across a field
8. The layer of less fertile soil that lies just beneath the topsoil
9. A kind of ore that contains a small amount of iron
10. A crop that protects the topsoil from washing away during winter rains
11. Plowing around a hillside in rows instead of up and down the hill

Finding the Facts

1. Why is it more essential to conserve a renewable resource than an unfailing resource? Why is it still more important to conserve expendable resources?
2. Why is a dust storm a sign of failure to practice conservation?
3. How did Indians use natural resources?
4. Why do cities depend on transportation?
5. Describe four ways of protecting the soil.
6. How does our nation practice conservation of its forests? Of its mineral resources?
7. What are the causes of yellow fever and malaria? How can they be prevented or controlled?
8. How does a nation suffer when it provides little schooling for its children?
9. Why do our workers have more leisure time than workers in underdeveloped nations?
10. What is meant by using leisure time wisely?

Using Maps

1. Study the map at the top of page 436. In what principal regions of the world is cotton grown?
2. On the map at the bottom of page 436 find the regions in which corn is grown. Where is the greatest production?
3. On the map at the top of page 437 which regions have the greatest rice production? Where is rice grown in the Western Hemisphere? In Africa?
4. What does the map at the bottom of page 437 tell about the extent of wheat production in the world? How far north is wheat grown in Europe? Compare wheat- and corn-growing regions.
5. On the map at the top of page 440 find the greatest petroleum-producing areas of the world.
6. Find the largest manufacturing regions on the map at the bottom of page 440.

Making a Summary

A good way to improve your understanding of what you read is to make a summary. A summary is a short statement, in your own words, of what the author has said in several paragraphs or pages of the text. To make a summary, read a portion of the text carefully, think about what you have read, and then jot down the facts or ideas as briefly as possible.

Turn to page 425 and reread the introduction to the unit. Ask yourself: What are the main points brought out in this story? Write them down in a few sentences.

Now compare what you have just written with the text. Does your summary give a good idea of what the Henderson children learned about the resources of their community and the need to conserve them? If so, you have made a good summary.

Interesting Things to Do

1. Divide the class into four groups and assign to each group one of the following: passenger pigeon, Labrador duck, buffalo, and whooping crane. On the basis of library research, let the groups report to the class, telling where the creatures once lived, how plentiful they were, and what happened to them.
2. If you live in a farming region, invite the county farm agent to tell your class what farmers are doing to conserve the soil. Ask him to show pictures of the effects of soil erosion and of soil conservation.
3. Someone who works for your community's water department would also be a good person to talk to the class. Ask him to discuss the source of your water supply, the quantity of water consumed now as compared with the past, the ways in which the water is purified, how a larger supply of water may be obtained, and how each individual can help to conserve water.
4. Prepare a list of people in your community who give their time to help others and thus conserve human resources. Describe what these persons do and the value of their services. Examples: Scout leaders, religious teachers, and Red Cross volunteers.

Things to Think About

1. Explain the meaning of this statement: "A nation is only as strong as it is wise in its use of natural and human resources."
2. Would you favor strict laws requiring all farmers to practice soil conservation? Give reasons for your answer.

Matching Causes and Results

The story of conservation contains many examples of causes and effects. Match the Causes listed in the left-hand column with the Results in the right-hand column.

Causes

1. Many early settlers in our eastern states failed to fertilize their soil.
2. Many pioneers shot wild animals willfully and wastefully.
3. President Theodore Roosevelt led a movement to conserve our forests.
4. Heavy rains caused gullies to form on hillsides and carried topsoil away.

Results

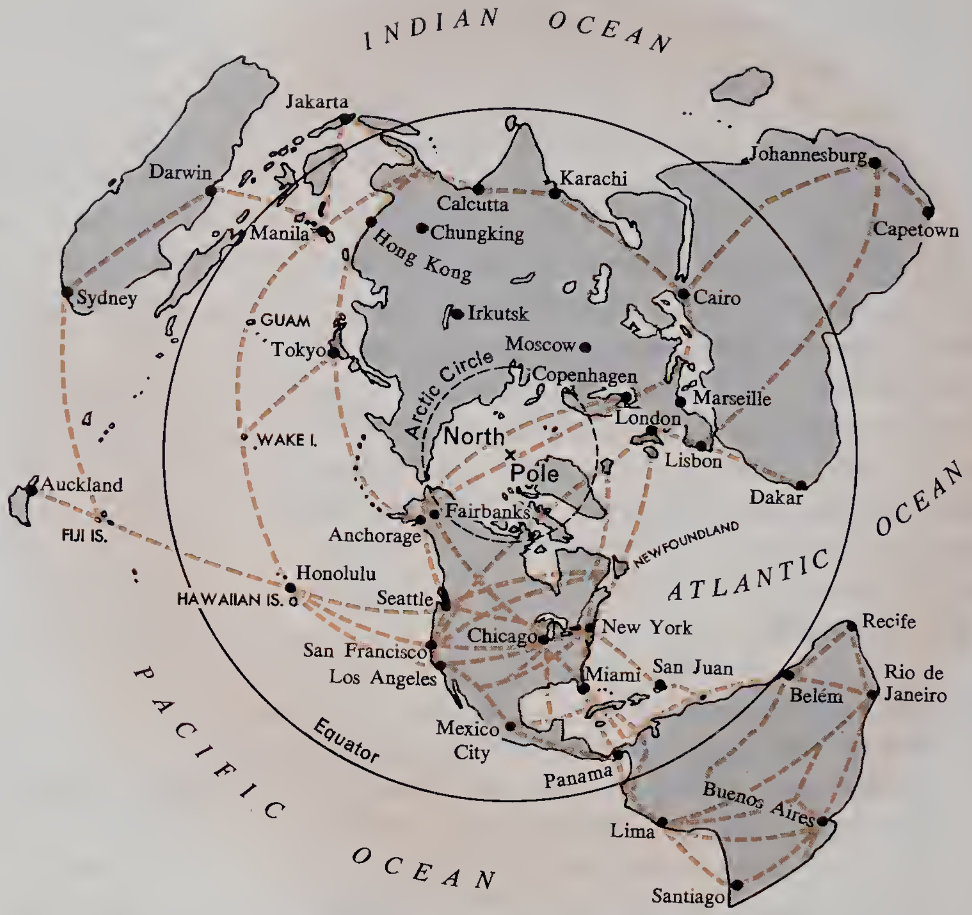
a. Buffaloes, prairie chickens, and other wildlife almost disappeared.

b. Farmers began to use contour plowing to prevent soil erosion.

c. Some farms were abandoned and the farmers moved elsewhere.

d. His work resulted in the preserving of many forests as national possessions.

By reviewing your text, you can find many more examples of causes and results. Compile two lists of these—one list of causes with good results and one with bad results.



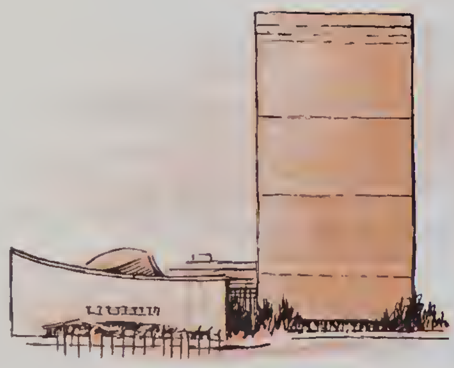
II.

Sharing Our World

World trade:
a freighter loading cargo

A diesel train:
fast travel on land

A jet plane:
fast travel in the air



The United Nations:
a great world forum

AN ENGLISHMAN named Phileas Fogg was chatting with friends in London one day in 1872. When the conversation turned to the subject of travel, Fogg made a startling statement. He declared that he could go around the world in eighty days.

Most of the people present regarded the statement as absurd. But one friend said, "The world has grown smaller. With trains and steamships people can travel ten times as fast today as they could a hundred years ago. Still you would have to average more than 300 miles a day to do it."

Fogg decided to prove his claim. With a Frenchman as a traveling companion, he left London by train on the evening of October 2, 1872. The train took the men to the English Channel, which they crossed by boat. In France they boarded a train to Paris. From Paris they crossed France and Italy to the port of Brindisi. At Brindisi they took a steamship bound for the Far East.

The ship sailed through the Mediterranean Sea, the Suez Canal, the Red Sea, and the Arabian Sea. On October 20 the men arrived at Bombay, India. There they boarded a train for Calcutta. Half way across the peninsula the train stopped because for a stretch of fifty miles the railroad had not been completed. The only method of travel offered to them was to go by elephant. The elephant gave them a slow ride, but it carried them to a place where they were able to get a train for Calcutta.

From Calcutta the men went by ship to Yokohama, Japan. In Yokohama they were just in time to board a ship for the United States. The vessel left Yokohama on November 14, crossed the Pacific Ocean, and docked in San Francisco on December 3. When the men left San Francisco later that day, they thought they had won the race. A train ride to New York and an ocean trip to England could be completed in the remaining time.

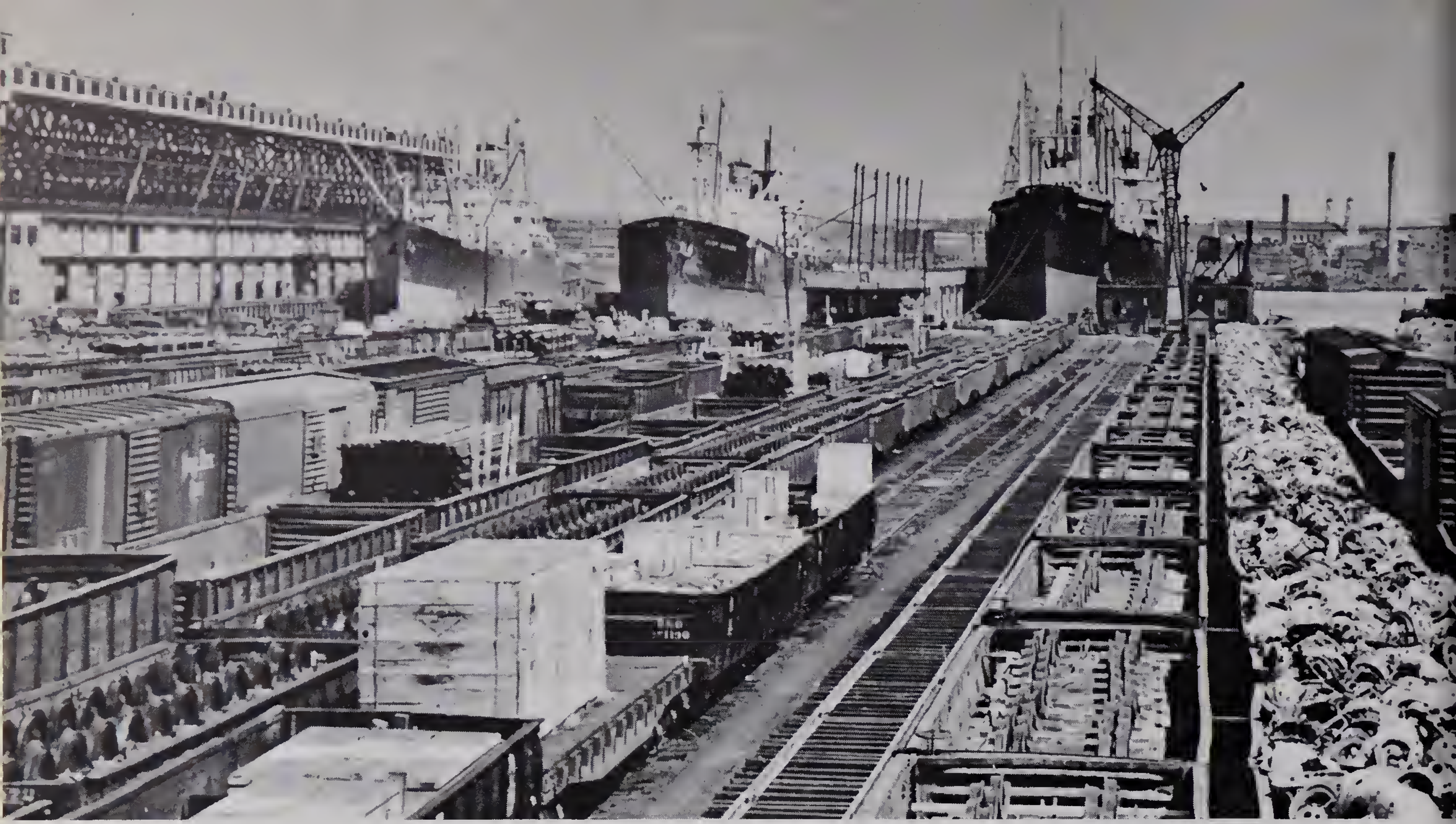
If you have read the story, *Around the World in Eighty Days,* by Jules Verne, you know that mishaps on the rest of the trip cost them many precious hours. When they finally reached London a few days before Christmas, they thought they had lost the race. Only after rechecking their travel time did they find that they had actually circled the globe in eighty days.

It was an exciting adventure. The story proved, as Phileas Fogg's friend had said, that the world had grown smaller. Distances in miles were, of course, the same as always. But improvements in the means of transportation enabled men to cover those distances much more quickly than formerly.

Magellan's world, in travel time, was more than five hundred times larger than the world of 1962. The world that Phileas Fogg knew in 1872 was more than forty times larger than ours. The swift-flying jet bombers of today (see the airways map on the opposite page) reduce the world to half the size it was only twenty years earlier.

In this shrinking world all nations are neighbors. Because they share a smaller world, nations need to develop ties of trade and understanding. In this unit we will consider the following questions:

1. Why are economic ties between nations necessary?
2. How do nations develop ties of understanding?
3. What are the ideals that nations share?



Baltimore Association of Commerce

Cities like Baltimore, shown here, which are transportation centers for the United States and other parts of the world, are symbols of the economic ties which help to bind nations together.

1. ECONOMIC TIES THAT BIND NATIONS TOGETHER

We live in a world that contains many resources—natural and human. Some parts of the world have natural resources of the kind that can be used in industry. Other regions have the resources necessary for farming. The human resources of nations vary also because the people of some countries are more highly trained than those of other lands. So nations find it desirable to exchange goods and raw materials, ideas, and information of many kinds.

TRADING PRODUCTS

Three hundred years ago Boston was a small port. The people of Boston and the surrounding countryside of Massachusetts were colonists who depended on England for all the manufactured goods they used. Consequently, the arrival of a sailing ship in Boston created a great deal of excitement. As soon as a vessel was sighted, the town crier announced the news. Men, women, and children ran to the harbor and waited for the ship to drop anchor.

"What did you bring this time?" they shouted to the captain. "Do you have cloth?" called the women. "Tools?" asked the men. "How soon will you unload?" the children wanted to know.

"Be patient," replied the captain. "My cargo's worth waiting for. I have a fine assortment of fabrics, carpenter tools, glass windowpanes, blankets, writing paper, and dishes."

Cheers greeted the captain's words, for these were products that the people of Boston badly needed. They could not make such goods for themselves, so the colonists had to get their supplies from England.

Before sailing back to England, the crew loaded the ship's hold with barrel staves, dried fish, and furs. The colonists sent these products to pay for the goods they had received from the mother country.

The cargoes that pass in and out of our ports today are much different from those of colonial times. But we and other peoples still trade for the same reasons that Boston and England did. We need certain products or raw materials from abroad, and other lands want goods that we produce.

The need to buy

No country on earth can get along without the products of other lands. We can see how true this is by noting the goods and raw materials that our own nation must obtain abroad. Ours is a modern nation, with good resources, but we lack many things.

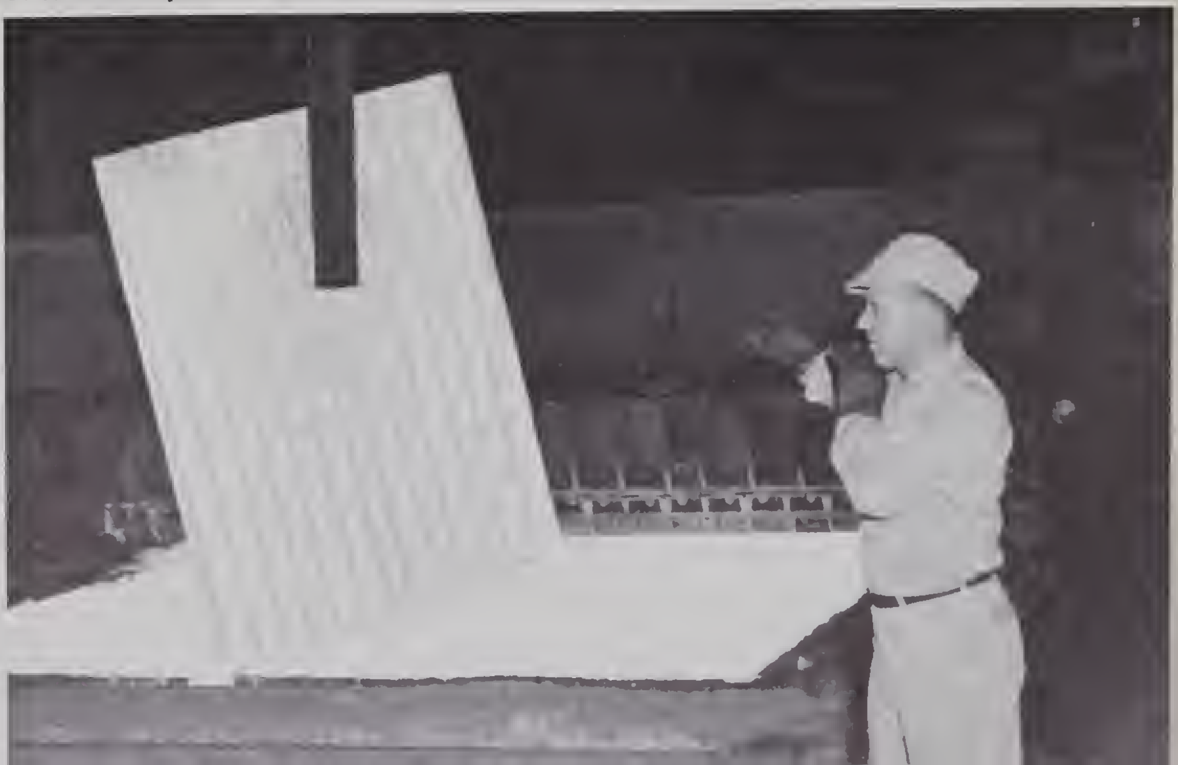
Our steel industry, for example, is larger than that of any other nation. Our mills produce almost one third of the world's steel. But our supply of iron ore is disappearing. Each year we import large amounts of iron ore from Canada and Venezuela.

Steel is an alloy in which iron is the principal ingredient. Iron is just one of forty different minerals that the steel industry obtains from fifty-seven countries. Another of these minerals is the grayish-white metal called manganese. Steel cannot be made without manganese. We get nine out of every ten pounds of our manganese from India, South Africa, and Brazil.

If manganese and other minerals needed to make steel could not be imported, our mills would close down. There would be no steel for cars, tractors, bridges, refrigerators, and the hundreds of other products that we use daily.

Steel is just one of many examples of how much we depend on the products of other lands. The telephone contains forty-eight different materials from eighteen countries. Fifty-six nations supply us with more than three hundred items needed to manufacture

U. S. Steel Corporation



Steel is one of the most important products used in industry today. This steel worker is keeping a watchful eye on an ingot, or piece of molded steel, to see that it is lifted safely from the soaking pit. While in the soaking pit the ingot has been kept constantly at white heat.

a modern automobile. Eight different products from other lands go into a can of shoe polish.

We must import all of our tin, used as a coating on cans, and all of our asbestos, used in making fireproof materials. Nearly all of our nickel, used in coins, comes from Canada. We import more than half of our bauxite, the ore from which aluminum is refined. About half of the lead used in paints and half of the copper that goes into electric wires are also imported. Seven out of every ten pounds of our wool, used in making warm clothing, come to us from overseas.

The list of imports is indeed long. It includes raw materials, factory products, and foods. Among the food products that we import are coffee from Brazil and Central America, cacao from Ecuador, Brazil, and Ghana, bananas from Central America, tea from Japan and Ceylon, and olive oil from Italy.

The United States is not the only country that must import many of the things it needs. All nations have long shopping lists. The lists vary, of course, because different lands have different needs.

The crowded islands of Japan and Great Britain must import much food because they cannot produce enough to feed their people. They must import raw materials to keep their factories running. Brazil buys factory machines because it cannot make enough equipment itself. India, a poorly developed land, needs farm machinery, food, and medicines. As we go down the roll of countries, we find that each one requires products from other lands.

The need to sell

Trade is a two-way street. Nations must sell goods abroad in order to pay for the products they buy. A country imports the raw materials and products it lacks. To pay for these, it exports raw materials and goods that it produces in surplus quantities.

India, for example, mines far more manganese than it requires. So it sells the mineral to us and to other nations. With the money from these sales, India can pay for some of the products it needs from abroad.

Venezuela, with rich oil fields and iron mines, sells petroleum and iron ore. Bolivia has fine deposits of tin, so the Bolivians mine and export this metal. Brazil, Colombia, and some Central American countries have great coffee plantations. Ships leaving these countries carry coffee to the United States and other nations.

Denmark produces large quantities of bacon, eggs, and butter which it sells to Great Britain and other European countries. Great Britain exports cars, machinery, and bolts of cloth made in its factories. From the sale of such manufactured goods it earns money with which to buy the Danish and other products it needs to import.

Some nations sell only a few products. Some sell many. The United States exports a wide variety of goods and products. We sell wheat, cotton, tobacco, and many other farm products. Customers in other lands buy about one eighth of the crops that our farmers grow. Ships leaving our ports also carry factory products of all kinds. Among the many items that we sell abroad are cars, trucks, farm equipment, factory machinery, electrical appliances, cloth, and medicines.

With good resources, skilled factory workers, and expert farmers, we produce much that we can sell abroad. Because our sales are large, we are able to buy the many things that we need from other lands. As in the case of all other nations, we cannot buy without also selling.

St. Louis Chamber of Commerce

Workers load a Mississippi River barge at the dock in St. Louis. MacArthur Bridge, across the Mississippi, is shown in the background. This river is one of our nation's greatest waterways.

The need for transportation

Suppose that you are a farmer in Nebraska and you have harvested a fine crop of wheat which you wish to sell. You load the grain in a truck and drive down the highway that runs past your farm. At the nearest town you sell your wheat to a grain buyer.

The buyer may grind the wheat into flour, put the flour into bags, and ship it by truck to grocery stores in near-by communities. More likely, he will send the grain to a flour mill in a distant city—Buflalo, New York, perhaps. If so, your wheat will go by railroad to Chicago. There it will be put on a freighter and carried by way of the Great Lakes to Buffalo.

In Buffalo a mill grinds the wheat into flour. Some of the flour is put into bags and sent to grocery stores in the Northeast. Some of it is put into barrels and loaded on barges. These boats carry the barrels of flour eastward along the New York State Barge Canal to the Hudson River and down the river to the port of New York City. There the flour is loaded into the hold of a cargo ship en route to Great Britain, let us say.

By now the wheat from your fields has traveled thousands of miles. By selling the wheat, you received money to buy things that you need. The people who received your wheat have eaten bread made from it.

The sale of the wheat was possible because there were ways of sending the grain to people who wanted it. A great network of highways, railroads, and waterways stretches from the gate of your farm to the faraway places where wheat is needed.

The Nebraska wheat farmer is just one of many persons who depend on the worldwide system of transportation. So do the Honduran banana grower, the Swedish knife manufacturer, the Italian olive picker, the Swiss watchmaker, the Detroit auto worker, and the Arabian oil driller.

Transportation is equally important to buyers. It enables us and many other nations to buy such products as Italian motor scooters, Belgian lace, British bicycles, Malayan rubber and tin, Dutch tulip bulbs, and German cameras.

All nations share this need for transportation. All rely on the ocean liners and airplanes that travel between nations and continents. In addition, all depend on the means of transportation within the countries. For example, a steel company in Pennsylvania needs iron ore from Venezuela. So it is important that Venezuela can move the ore from its mines in the mountains to its seaports, where United States freighters can pick it up.

Every nation that carries on trade thus has an interest in the transportation systems of all other countries. Because this is true, we ask: How do the transportation systems of other lands compare with ours? A good way to answer this question is to study maps showing the airways, railroads, highways, and inland waterways of the world.

Such maps reveal that the United States and southern Canada are dark with the lines of many different transportation routes. Europe is well covered with lines, too. Other continents have a few regions with many lines and large areas with none.

Altogether, about half of the land area in the world has good water routes, air lines, railroads, and highways. In the other half the people still depend on primitive means of transportation.

In parts of Asia, Africa, and South America people carry heavy loads on their backs or put them on the backs of animals. Beasts also pull wooden-wheeled carts. Where there are streams, the people use log rafts, dugouts, and small boats made of bamboo, bark, or animal skins.

One man carrying a load cannot walk as far in a day as a freight train can travel in an hour. An ox cart may cover no more than

Los Angeles County Chamber of Commerce

Increasing numbers of cars, trucks, and buses use our highways each year. This has created the need for thousands of miles of new and better roads like the complex one pictured here. Today Federal, state, and local governments must all co-operate in building our modern highway systems.

forty miles in the time that a plane can fly from New York to Los Angeles. The load on a man's back or in an ox cart would fill only a small corner in a railroad car, or truck, or plane, or barge.

Nations that can move goods quickly and easily are the nations that carry on the most trade. When transportation improves in underdeveloped countries, they will be able to buy and sell more goods, too.

TEAMWORK IN TRADE

We know there must be co-operation in order to have trade. The exchange of products takes place because nations need to buy and sell goods. They can promote even greater trade among themselves by working together in special ways.

Lowering trade barriers

Some nations of western Europe have recently developed a plan to encourage trade. It came about in this way. Officials of three countries—Belgium, the Netherlands, and Luxembourg—met to discuss tariffs. Tariffs are taxes paid on goods as they are taken across the borders between countries. "What would happen," the officials asked, "if the tariffs on goods crossing the borders of our three countries were lowered or removed entirely? Would it lead to more trade?" They agreed that the removing or lowering of tariffs would indeed encourage trade.

In 1947 these three countries, known as the Benelux nations, adopted a plan to make trade among themselves easier. Under this plan imports and exports moved across the borders of the Benelux nations without payment of tariffs. In other words, these nations share a common, or the same, market. Later, three other European countries—Italy, West Germany, and France—agreed to join the same organization. This organization has come to be known as the Common Market.

To see how the plan works, let us find out how a tariff affected the price of a product before it was adopted. Suppose that a Dutch factory shipped a bicycle to a store in France. The Dutch like to ride bicycles, and their factories turn out good ones at reasonable prices. When the Dutch-made bicycle arrived in France, the French government charged a tariff on it.

The French merchant who ordered the bicycle had to pay the factory price charged by the Dutch and, in addition, the tariff charged by the French government. The French merchant then had to include both costs in the price at which he could sell the bicycle and still make a profit on it. As you see, the tariff was really paid by the French customer who bought the bicycle.

If the tariff was high, many French people were unable to buy the Dutch-made bicycles. So the Dutch factories sold fewer bicycles to French merchants than they would have if there had been no French tariff. Without the tariff, a Dutch-made bicycle can be sold in France for about the same price as in the Netherlands.

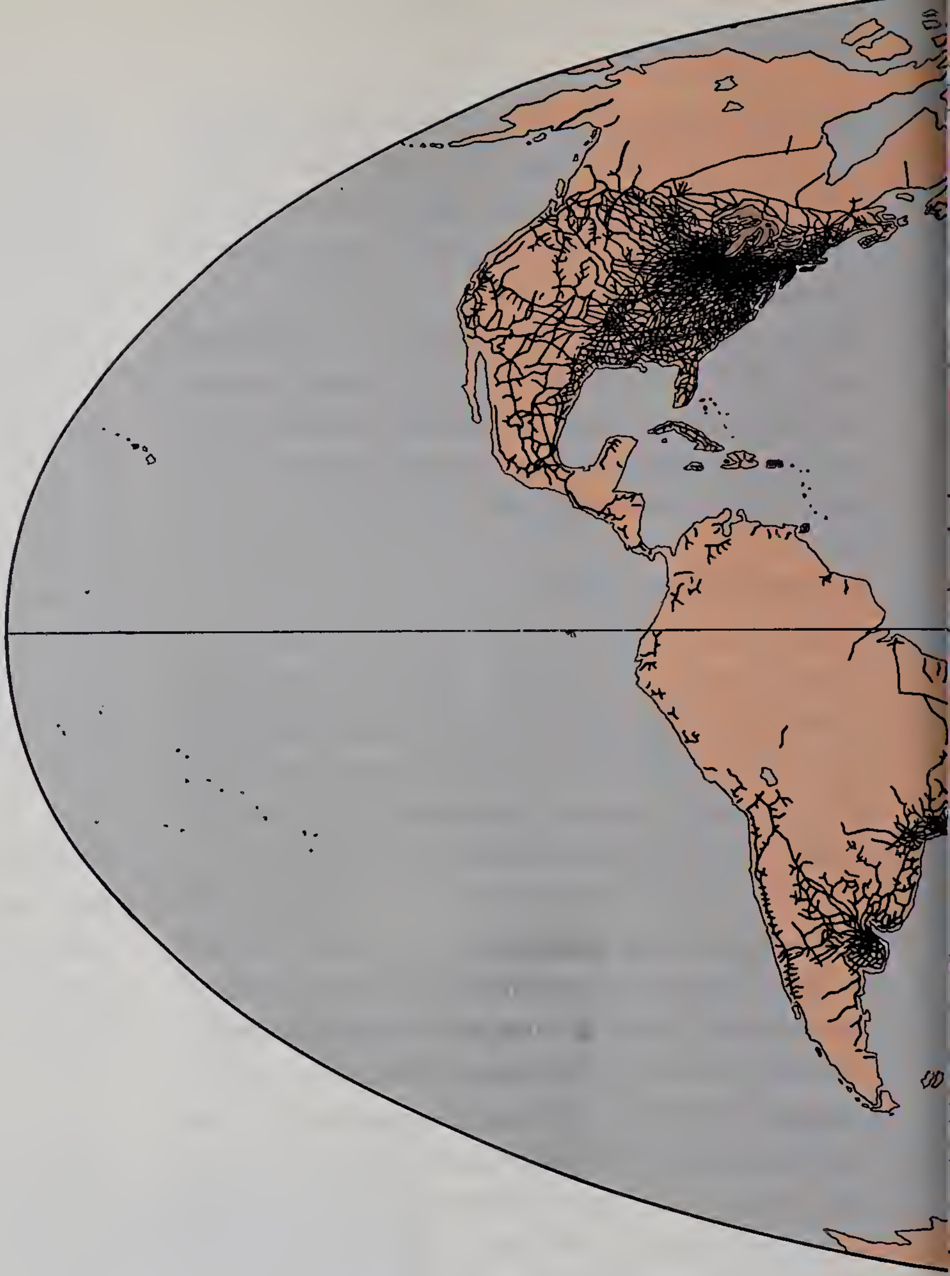
Can you see why these European countries feel that removing or lowering tariffs will encourage the buying and selling of more products? They believe that tariffs are barriers, or walls, that restrict trade. As neighbors, they want to tear down the walls that stand in the way of trade. When nations do this, we say that they are engaging in *free trade.* That is, they remove tariffs so that they can trade products more freely.

Holding trade fairs

More than 2,000,000 persons flock to the city of Hannover, in West Germany, each

PRINCIPAL RAILROADS OF THE WORLD

This map shows that some parts of the world have few railroads and other parts have a great many. Compare the map with the maps on pages 52 and 53. Why has South America few railroads? Why are most Australian railroads located in the east and in the south? Where are most of Asia's railroads located? What part has geography played in the building of railroads on the different continents?



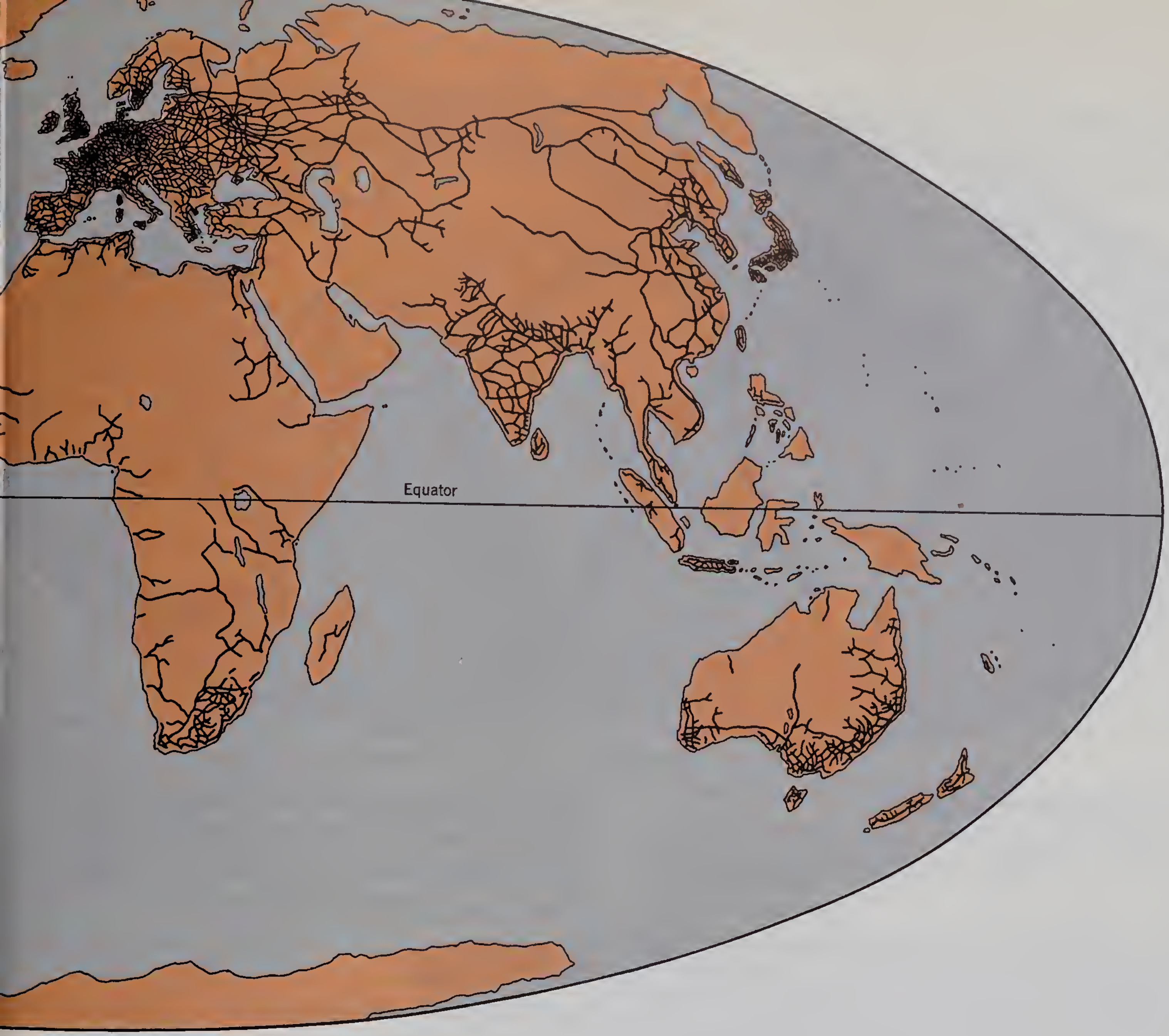
year. Some of the visitors are from other cities in Germany. Many people arrive from foreign lands. All want to attend the trade fair which the city holds.

At the fair, German manufacturers exhibit their products. Factories in the United States and many other countries also send goods to be displayed there. At the fair a visitor can see the latest models of trucks and railroad cars, power shovels, electric motors, and factory machines. He can examine typewriters, sewing machines, tractors, and hundreds of other products. If he desires, he can order goods from the salesmen.

The Hannover fair is one of many such exhibitions that take place in cities around the world. The cities that arrange the fairs are promoting world trade. They are helping buyers and sellers from all countries to meet and do business.

TEAMWORK IN TRANSPORTATION

Ships can sail the oceans carrying cargoes because many countries are willing to receive foreign vessels in their ports. Neighboring lands, such as Mexico and the United States, find it desirable to connect their railroads and highways. In these and other ways

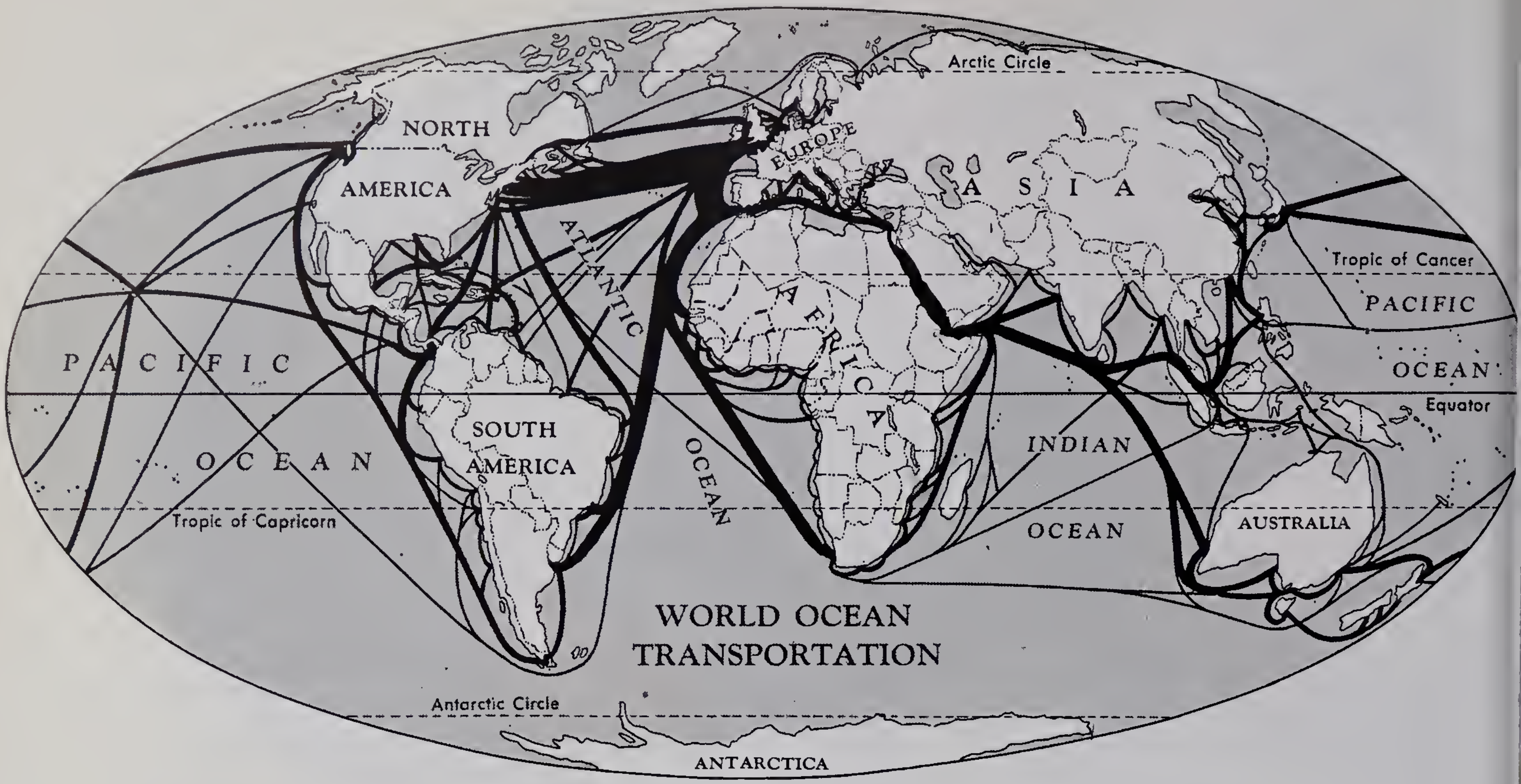


nations have built up the world-wide network of transportation.

The St. Lawrence Seaway

Canada and the United States furnish a good example of teamwork in transportation in a number of ways. One of these is their cooperation in managing the St. Lawrence Seaway. The seaway takes its name from the St. Lawrence River, which begins at Lake Ontario and empties into the Gulf of St. Lawrence. Many years ago several canals were constructed so that small ships could avoid the rapids in the river and sail from the Atlantic Ocean to the Great Lakes. This formed a fine water route. But ocean liners could not use the route.

In 1954 the two nations agreed to improve the waterway so that large vessels could use it. With the widening and deepening of the seaway, ocean-going ships can reach the heart of North America. Foreign ships can unload their cargoes at ports along the St. Lawrence River and around the Great Lakes. Vessels from ports like Duluth-Superior, Chicago, and Cleveland can take the farm and factory products of Canada and the United States directly to customers abroad.



International Ice Patrol

Big newspaper headlines told a sad story on April 15, 1912. "Titanic Sinks in Atlantic," they reported. "New Ship Goes Down With More Than 1500 People After Striking Iceberg."

The loss of the British ocean liner disturbed all countries that sent ships across the Atlantic. "We must prevent accidents like this," they agreed. So they organized the International Ice Patrol to watch out for icebergs.

The patrol goes on duty each year when icebergs float down from northern waters. Crews of men aboard special planes and ships watch for the dangerous ice. Twice a day, the patrol broadcasts warnings to all ships in the North Atlantic. The broadcasts give the exact location of every iceberg.

The United States provides the planes, ships, and crews for the patrol. Fifteen countries join us in paying the costs of the service. As partners, these nations are helping to protect hundreds of cargo ships and passenger lines. Transportation across the Atlantic is thus made safer and better.

Weather ships

Seven nations maintain a fleet of weather ships in the Atlantic and Pacific oceans. When one of the ships must return to port, another is standing by to take her place.

The ships are floating weather stations. They carry experts who observe the clouds and winds and measure rain and snow. The men radio reports on these weather conditions to Washington, D.C. From Washington the information goes to weather bureaus in the United States and in many other countries. The reports from sea are especially helpful to men who fly airplanes across the oceans.

The United States is one of the nations that operates the weather ships. The whole world benefits from the co-operation of these seven countries. They share the weather information which they obtain and thus help to improve air transportation.

World air lanes

Let us imagine that we are to take a trip abroad by air, starting from San Francisco. We board a plane in San Francisco for New York. In New York we buy tickets for Copenhagen because it is on the new northern route that we want to follow.

After taking off from New York, we fly a distance of nearly 3900 miles to Copenhagen, Denmark. On our next flight we go from Copenhagen across Sweden, Norway, and the North Pole to Fairbanks, Alaska. We stop at Fairbanks for fuel and then take off for Japan. We land at Tokyo, which is about 8000 miles from Copenhagen.

When it is time to leave Japan, we board a plane for our journey back to the United States. We stop at Guam, Wake Island, and Hawaii on the way to San Francisco. The long flight between Tokyo and San Francisco (with the three stops in between) covers a distance of 6260 miles.

Upon landing in San Francisco, we have completed a journey of about 21,000 miles. The planes in which we flew had permission to fly above the territory of many nations. Air fields in North America, Europe, and Asia helped us to land and take off. Weather observers, ground crews, and radio operators gave us expert assistance.

With this kind of co-operation, the planes of many nations regularly fly to distant lands. Both passenger planes and freight planes safely travel at 400 or more miles per hour along routes that circle the earth. Contrast this with the journey of Phileas Fogg, whose eighty-day trip was record-shattering in 1872.

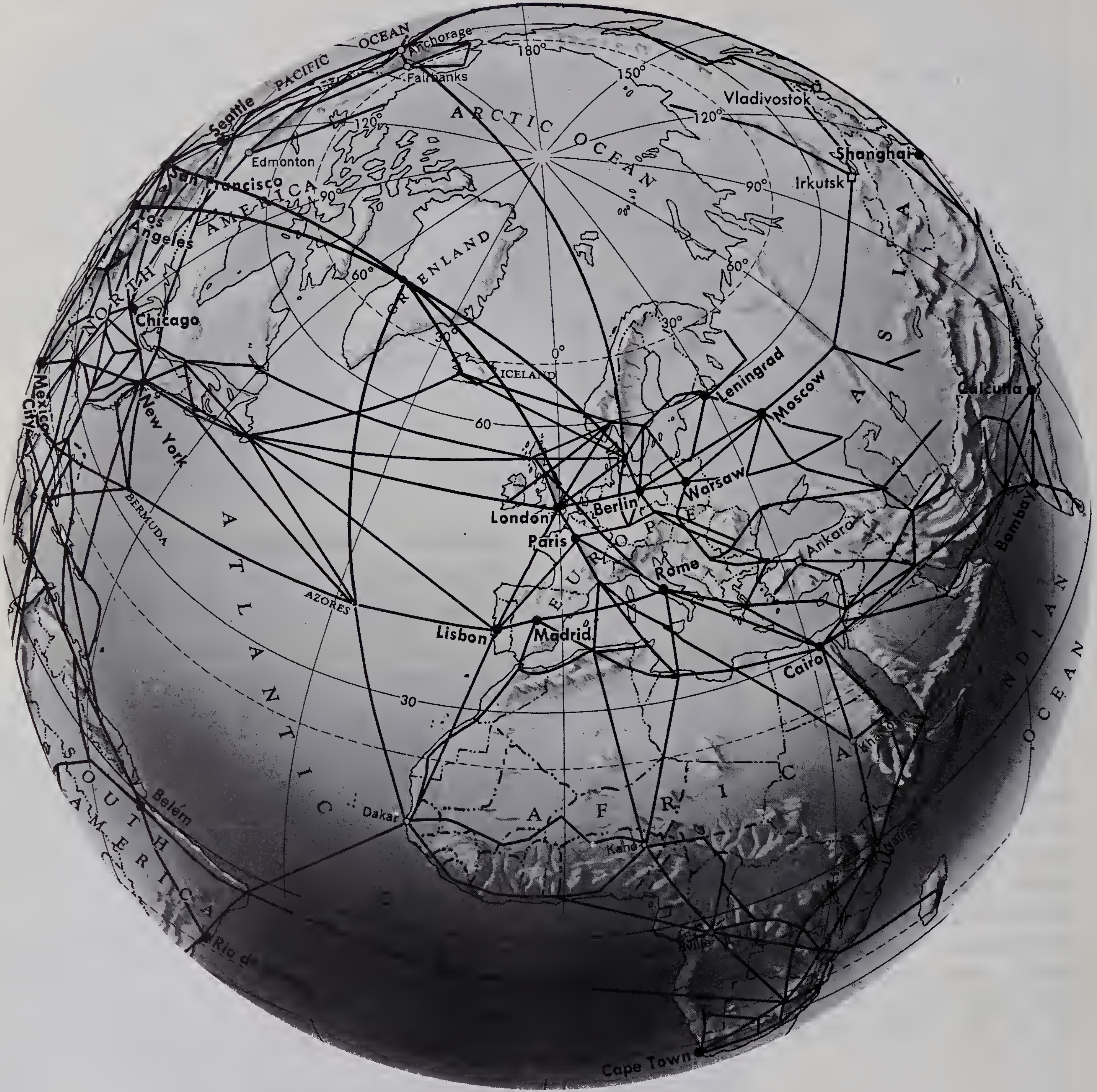
TEAMWORK IN BUSINESS AND INDUSTRY

Today nations are seeking new ways of working together for economic progress. Two

The Port of New York Authority

The airplane, especially the jet, has become the fastest and one of the most important means of travel today. The airport shown in the picture is New York International Airport. It serves more world flights than any other airport in all the United States.

PRINCIPAL AIR LANES OF THE WORLD



This globe shows the principal air lanes of the world. Compare this map with the maps of railways and of ocean shipping on pages 472–473 and 474. How has air transportation helped some regions?

of their latest efforts involve the running of industries and the lending of money.

Coal, steel, and atoms

We have seen that Belgium, the Netherlands, Luxembourg, France, Italy, and West Germany belong to an organization which promotes free trade. These nations also belong to an organization called the European Coal and Steel Community. As members of this group, the six countries co-operate in running their coal mines and steel mills. They decide how much coal and steel to produce. Together, they agree on where and when to sell the fuel and the steel. By combining their efforts, they expect to dig more coal and make more steel. As a result they expect each nation to make more money.

The six countries also co-operate in developing atomic energy. As a team, they hope to produce atomic fuel more cheaply than each one could alone. In this way they will gain a new source of power to run their factories.

The World Bank

Sixty-eight nations belong to an organization called the International Bank for Reconstruction and Development. Most people speak of it simply as the World Bank.

The World Bank is much like the bank on Main Street in your town. Some people go to the Main Street bank to deposit money. Other people go to borrow money. The World Bank receives deposits of money, and it also lends money.

The depositors are the sixty-eight nations that have agreed to support the World Bank. Each of these countries has deposited a sum of money in the bank. The borrowers are countries that need money for making improvements within their borders. The officers of the bank study these requests for money and decide how much to lend. Each borrower promises to repay the money that it gets from the bank.

Pakistan has borrowed money to improve its port city of Karachi. Guatemala obtained funds with which to build highways. Mexico received a loan to modernize its railroads. Australia borrowed a large sum to improve its highways, railroads, and air lines. Ceylon, India, Pakistan, and Colombia built power plants with money loaned by the bank.

All of this has come about because many nations deposited money so that other lands which needed the money might borrow from the bank. This is economic teamwork in the world community.

SHARING KNOWLEDGE AND SKILLS

Nations also are trying to build a better world by sharing their knowledge and skills. Trained men from progressive nations are showing underdeveloped lands how to produce more food and factory products. Countries that are lacking in medical care and education are receiving help from their more advanced neighbors.

The need for improved skills

We can observe the need for sharing skills by making a few comparisons. These comparisons show that many countries lag behind the more-progressive nations.

The progressive countries rank high in *literacy*. Literacy means the ability to read and write. In contrast, the underdeveloped lands are handicapped because many of their people cannot read and write. About half of the world's people cannot read and write. Most of these illiterate people are inhabitants of countries in Asia, Africa, and Latin America. These countries do not have enough teachers and schools. Consequently, many children are never able to attend school.

This is true, for example, in Afghanistan, where 95 out of every 100 people are illiterate. In India and Pakistan, 75 out of every 100 people cannot read and write. Seventy out of every 100 Egyptians and 95 out of every 100 Ethiopians are illiterate. These are just a few of the many countries that suffer from the handicap of illiteracy.

Progressive countries provide an opportunity for all boys and girls to attend school. As a result, nations like Australia, Canada, Denmark, West Germany, Japan, Luxembourg, the Netherlands, New Zealand, Sweden, Switzerland, and the United States have few persons who are illiterate.

Three Latin-American countries that are making good progress in education are Argentina, Costa Rica, and Uruguay. Eighty out of every 100 Costa Ricans, 85 out of every 100 Uruguayans, and 90 out of every 100 Argentineans can read and write.

A second comparison between backward and progressive countries can be made in *per-capita income*. Per capita means per person. By per-capita income is meant the average amount of money received in a year by each individual in a country. Thus, if 100,000 people receive a total of $10,000,000, the per-capita income of the group is $100.

In underdeveloped countries, where there are many unskilled workers, the people have very low incomes. The per-capita income is $70 or less in Afghanistan, Burma, Ethiopia, Haiti, India, and Pakistan. The per-capita income is between $80 and $150 a year in Liberia, Jordan, Ceylon, Iran, Iraq, and Thailand. The average is only slightly higher in Brazil, Chile, Ecuador, and Morocco.

The more-advanced countries have large numbers of people who are skilled, so they can earn good wages and live comfortably. In a recent year, for example, the per-capita income in Belgium, Denmark, France, Great Britain, Luxembourg, Norway, and Sweden was from $750 to $1300. Australia, Canada, New Zealand, Switzerland, and the United States have even higher per-capita incomes.

A third great difference between advanced and backward nations appears in the *life expectancy* of the people. Life expectancy means the number of years that the average new-born baby can expect to live.

In backward countries many diseases weaken the bodies and shorten the lives of the people. Some of them get barely enough food to eat. Many of them have not learned the importance of keeping clean. They do not have enough doctors, nurses, and hospitals to care for those who are ill. As a result, the people cannot look forward to a long life. The life expectancy is only 30 to 35 years in such countries as Afghanistan, Burma, Ethiopia, Haiti, India, Indonesia, Iraq, and Pakistan.

In contrast, the people of more advanced nations have more and better food to eat. They receive better medical care. They practice higher standards of cleanliness. The life expectancy in these countries is from 65 to 70 years. Among the nations where this is true are Belgium, Canada, Denmark, West Germany, Great Britain, Luxembourg, New Zealand, Norway, Switzerland, and the United States.

To overcome their many handicaps, the people of underdeveloped countries need more teachers and schools, more doctors and hospitals. They need better-trained farmers, and they need factories with skilled workers. They need more power plants to generate electricity for homes and industries. They need more railroads, air lines, and highways

This truck from one of the health agencies of the United Nations takes medical supplies from country to country in Central America to help fight diseases that are carried by insects. Here the village children are receiving shots to keep diseases from spreading.

United Nations Photo

to provide transportation for their products and for the goods they buy.

Overcoming the handicaps

Thoughtful leaders in the underdeveloped countries are making great efforts to help their people improve their ways of living. Many of these countries are seeking help from international organizations and from more prosperous nations.

The requests are being answered in a number of ways. The United Nations, to which more than one hundred countries belong, has a program for assisting underdeveloped lands. So does the Organization of American States, made up of Latin-American nations and the United States.

The United Nations, for example, has sent more than 5000 engineers, doctors, nurses, teachers, and farming experts to countries that are striving for progress. These specialists give advice on building power plants and factories, combating diseases, educating children, and growing crops.

With the help of United Nations experts, Iraq has learned how to manufacture sugar from dates. Afghanistan's farmers now grow half again as much cotton as they did by primitive methods. In certain areas, Burma has wiped out the mosquitoes that infected one out of every three persons with malaria. Rinderpest, a disease that killed millions of farm animals, has been brought under control in Ethiopia, Thailand, India, Pakistan, Burma, Japan, Ceylon, and China.

United Nations specialists found that the average farm family in a large area of Greece was earning less than $200 a year. There were a number of reasons for this kind of poverty, but one was especially important. Mosquitoes were spreading malaria among the people, and other insects were weakening chickens and cows.

So the experts went to work with pest-killing sprays. After a time, the mosquitoes and other insects were wiped out. The people became healthier and stronger and thus could work harder. Chickens laid more eggs, and cows gave more milk. In a short time, the average farm family had doubled its income.

Haiti has also seen proof of what can be accomplished by following the advice of United Nations specialists. In 1953 the Haitian village of Fermathe was the home of eighteen farm families. They did a poor job of raising crops but were willing to learn new methods of farming. The families were taught how to prepare the soil more carefully than they had been doing. They were furnished better seeds to plant. They learned to spray their crops to kill destructive insects.

As a reward for their efforts, the farmers harvested fine crops of potatoes and other vegetables. Hotels and restaurants in the capital of Haiti paid good prices for the produce. When other farmers saw what was happening, they wanted to take part in the new project. The village of Fermathe grew. After they began earning more, the villagers built a school so that their children could obtain an education.

Iran sought assistance from the United Nations in developing transportation. Many communities in Iran were cut off from each other by deserts and mountains. Building highways and railroads to connect these communities would be difficult and costly. But Iran saw a way to improve its transportation in spite of these obstacles. Planes could fly where trucks and trains could not easily go. So the government of Iran decided to enlarge the nation's airways and thus carry more passengers and freight between isolated communities.

In answer to Iran's request for help, the United Nations sent seven aviation specialists. These specialists directed the building of air strips and the training of ground crews, radio operators, weather observers, and pilots. Soon Iran's air routes began to grow and to serve regions that needed modern transportation.

For countries that are trying to overcome illiteracy, there is new hope. The United Nations has established two training centers for teachers—one in Mexico and one in Egypt. The Organization of American States has a training center for teachers in Venezuela. Men and women from many lands come to the centers and learn how to teach. The people who receive this training go back home and, in turn, share their teaching skills with others. In this way, many countries gain new teachers.

The Organization of American States also maintains training centers for architects, government workers, and farm youths. Architects can attend a special school in Bogotá, Colombia, and learn to design low-cost houses. The designs call for the use of building materials plentiful in Latin America.

The United States contributes money to help support the United Nations technical aid and the training centers of the Organization of American States. Our nation also sends help directly to countries that request it. In a recent year, the United States sent money and technical experts to seventy countries that asked for such aid. The Peace Corps, formed in 1961, also helps nations in need of teachers and technicians.

As a result of our help, Brazil was able to open seven new hospitals and sixty health centers. Iraq and Ethiopia started agricultural colleges. Crops in Peru improved so much that the food supply was doubled. Engineers from the United States helped Pakistan plan electric power plants. Thailand irrigated 300 square miles of savanna and desert land.

These are just a few of the countries that have benefited from our willingness to share our knowledge and skill. Under the guidance of United States experts, many nations are making life better for their people.

Atoms for peace

On a cold December day in 1953, President Dwight Eisenhower left Washington for New York City. He was on his way to the headquarters of the United Nations. Waiting to greet him there were the men and women who represent the countries that belong to the United Nations. The President was to make a speech, and they were eager to hear what he would say.

President Eisenhower startled the delegates with a proposal. He said that the United States was ready to join other nations in setting up an International Atomic Energy Agency. Through this agency, the countries of the world could share their knowledge about the peacetime uses of atomic energy. The countries could also contribute materials for research that would be conducted by the United Nations.

If countries would work together in this way, the President predicted, the whole world would be better off. Experts from the United Nations would, he said, show how "to apply atomic energy to the needs of agriculture, medicine, and other peaceful activities. A special purpose would be to provide abundant electrical energy in the power-starved areas of the world."

In the months that followed, the spirit of sharing knowledge about atoms grew among nations. The United States offered a supply of atomic materials for use in research laboratories abroad. Great Britain promised to contribute atomic materials, too. India agreed to furnish ore that could be refined and turned into atomic fuel.

Events on the atomic-energy front came to a climax in a meeting held at Geneva, Switzerland, in August, 1955. The meeting was attended by the scientists of 73 nations. These learned men freely discussed the peaceful uses of atomic power. Many machines run by atomic energy were displayed. The meeting thus showed how nations can work together for the economic good of all.

The next big step toward atomic co-operation took place in 1957. The United States and other members of the United Nations founded the International Atomic Energy Agency (IAEA). The IAEA set to work at the task of spreading the peacetime benefits of atomic power.

The contributions of the United States and of some other nations in making atomic energy available to less fortunate nations is one more example of co-operation.

Do you know—

1. What raw materials are needed to make steel?
2. What are the leading exports of Venezuela? Of Denmark? Of Great Britain?
3. What means of transportation do primitive peoples use?
4. What six countries of Europe have lowered tariffs on goods crossing their borders?
5. Why was the International Atomic Energy Agency formed?

Courtesy S. Hurok, 730 Fifth Ave., NYC

An American pianist, Van Cliburn, performed in Russia in 1960. This is just one of the many cultural exchanges which have helped to improve understanding between the nations of the world.

2. TIES OF UNDERSTANDING BETWEEN NATIONS

We know that we live in a shrinking world. Nations are thus drawn closer together than ever before and have a greater need to understand each other.

WORLD MEANS OF COMMUNICATION

Nations gain or develop understanding in many different ways. Among the things that contribute to understanding are the migration of people, travel, news reports, books and magazines, sports events, world organizations, and co-operation in science.

The migration of people

No one knows exactly how many people migrated, or moved, to the United States from other lands before 1820. In that year, however, the government started to count the newcomers. So we do know that between 1820 and 1960 about 41,500,000 men, women, and children came here to live.

These immigrants helped to develop understanding between the Old World and the New. They brought varied skills and customs and shared these with their neighbors in the United States.

The newcomers also exchanged letters with friends and relatives in Europe. The letters gave people in other lands a better understanding of the United States. Letters coming to the United States helped to keep our people in touch with distant places.

All countries that have received new residents from abroad have had similar experiences. Migrating peoples have thus helped to form strong ties between nations.

World travel

In our modern world people travel long distances for a variety of reasons. A businessman from Germany flies to the United States to visit factories in New York, Pennsylvania, or Michigan. He gains new ideas which he takes back and applies in his own country. A family from Texas tours Europe and learns about ways of living in Italy, France, and Switzerland. A teacher from England spends a year instructing pupils in an Oregon school and learns how courses are handled in a United States classroom.

A dress designer from New York attends fashion shows in Paris and Rome and returns to New York with new ideas for sports clothes. Thailand sends a young man to study engineering at a university in California. After he graduates, he goes back to Bangkok and makes plans for dams and electric-power plants. A Chicago department store sends a buyer to select merchandise in Japan. The buyer returns home with a better appreciation of Japanese industries.

All of these travelers had an opportunity to meet the people of other lands and to see how they live. They return home with a better understanding of their fellowmen.

An early traveler who profited by such an experience was Marco Polo. Today millions of people travel about the world. In a recent year, nearly 1,000,000 citizens of the United States obtained *passports*. Passports are documents that identify citizens when they are traveling abroad.

The reporting of news

The President of the United States holds regular meetings with newspaper reporters. He announces plans that our government has made for dealing with world problems. He answers questions that the reporters ask about many things. The reporters send the President's words by telephone, radio, and telegraph to newspapers at home and abroad. Within a short time, people around the world read or hear the President's words.

News from other countries travels equally fast to the United States. We get reports from other nations with the help of two great news-gathering organizations. They are the Associated Press and United Press International. You see their initials—AP and UPI—at the beginning of many stories in your daily newspaper. Each of these organizations has reporters stationed all over the world. In addition, some large newspapers send reporters to faraway places and thus have their own sources of news.

We thus have a world-wide exchange of news. This enables the people all over the world to know more about distant lands.

Books, magazines, movies, radio, and TV

Nations also exchange books, magazines, motion pictures, radio broadcasts, and television programs. Each of these methods of communication helps to improve understanding among the peoples of the world.

Books and magazines are widely circulated. Although languages differ, there are people in every country who can read some of the materials that come to them from abroad.

Motion pictures can be shown everywhere. Movies from the United States have appeared on screens in foreign cities, mountain villages, jungle clearings, and desert settlements. Movies made in Great Britain, France, and Italy are popular with audiences in the United States. Some movies do not present a true picture of life in the country where they were made. But many other motion pictures help to give foreign audiences a better idea of how their neighbors live.

The Girl Scouts are a large world organization. Here Girl Scouts from Germany and from the United States meet for a party in West Germany. Groups like this promote peace and understanding.

Girl Scouts of America

The people of Canada and the United States watch many of the same television programs. Great Britain and the United States exchange motion-picture films to be broadcast by television. People in Europe also enjoy television programs that cross boundary lines. They enjoy radio, too.

WORLD ORGANIZATIONS

In today's world people share many interests and purposes. To help them carry out their aims, they have formed organizations which are now world wide in scope.

Boys' and girls' organizations

Lord Robert Baden-Powell organized the Boy Scouts in England more than fifty years ago. Several years later his sister started the Girl Guides. Both organizations soon won members all over the world.

Today there are more than 5,000,000 Boy Scouts throughout the world. They uphold ideals of honesty, fair play, and service to their fellow citizens. In all countries Scouts engage in camping and other outdoor activities. Every four years Scouts from many nations assemble for a world jamboree. Those who attend the jamboree demonstrate outdoor skills and exchange hand-made articles.

The Girl Guides of England and the Girl Scouts of America form an organization that has 4,500,000 members in many lands. Like the Boy Scouts they promise to be truthful, kind, and helpful. The Girl Scouts go camping and learn such skills as cooking, first aid, and sewing.

Among the many other organizations that strengthen world ties of friendship are the Camp Fire Girls and the Junior Red Cross. The Camp Fire Girls engage in activities that are similar to those of the Girl Scouts. The Junior Red Cross sponsors the exchange of friendship gifts between groups of boys and girls in different nations. These and many other groups strive to improve understanding between nations.

United Nations

Men and women from many lands attend meetings in the United Nations buildings in New York City. Fortunately, most of these people know at least one language besides their own. This makes it easier for them to work together.

The United Nations also helps them by using five official languages—English, French, Chinese, Spanish, and Russian. At UN meetings every word that is spoken may be heard in each of the five tongues. A careful system of translating languages makes this possible. When a delegate talks, he speaks into a microphone. His words are carried by wires to booths at the side of the meeting room. In these booths sit interpreters—one for each of the five official languages. As the interpreters listen to the speaker, they translate what he says into the official languages.

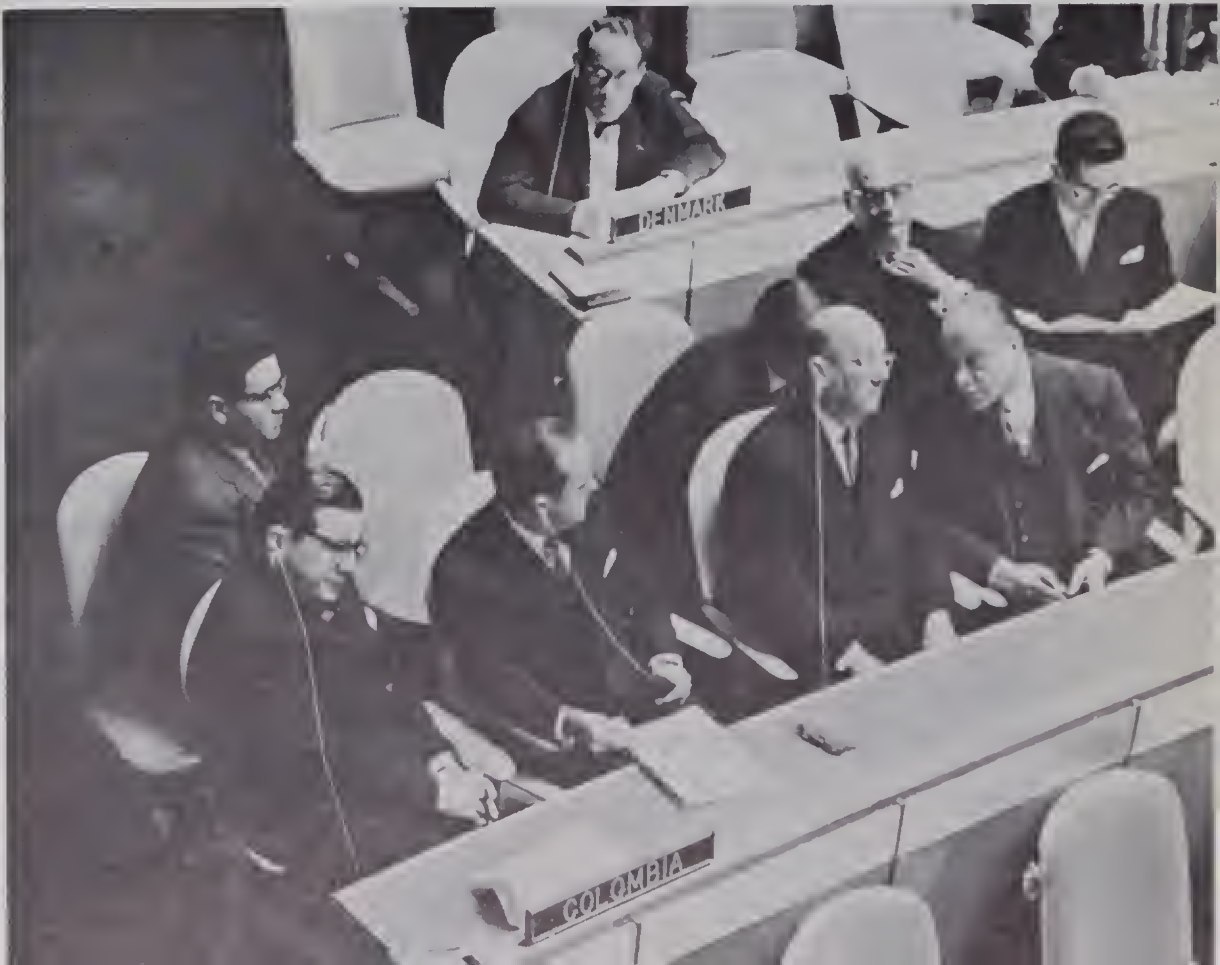
The words of the interpreters go out over another set of wires to the people in the main room. Each person present has earphones with which to listen and a dial with which to select the language he wants to hear.

The interpreters thus have a great responsibility. They enable the delegates in the United Nations to understand each other's words. Differences in language do not stand in the way of exchanging ideas and opinions.

As the delegates speak, it is clear that some of them agree on how to deal with the problem they are discussing. Others disagree. But the important thing is that they are meeting face to face and talking matters over. They are reaching a better understanding than they would have if no meetings were held.

The United Nations also sponsors world meetings that bring together teachers, artists, musicians, scientists, and engineers. These people travel long distances to attend the meetings and to share ideas.

United Nations Photo



These delegates to the United Nations have put on earphones to listen to a speech. Which one of the five official languages heard in the meetings at the United Nations would the delegates of Colombia listen to? What language would the delegates of Denmark choose? Give reasons for your answer.

Universal Postal Union

You can send a letter to a friend who may live in any one of more than 100 foreign countries. Your letter, if it bears the correct amount of United States stamps, will be carried to the address that you have written on the envelope. Your friend's reply will come to you bearing a postage stamp of the country in which it was mailed.

This exchange of mail takes place with the help of a special organization. It is called the Universal Postal Union. Twenty-two nations established the union in 1874. Today it is a part of the United Nations.

The members of the organization have agreed to co-operate in the sending and receiving of mail. Each nation has promised to accept and to deliver letters mailed from the other member nations. These countries have a system of paying each other to handle mail. This kind of co-operation enables people of different countries to develop understanding through exchange of letters.

International Geophysical Year

A great scientific adventure began in the summer of 1957. Ten thousand scientists from about seventy nations launched a special study of the earth and sky. They set aside eighteen months for the study and gave a name to this period of time. It became known as the International Geophysical Year 1957—1958. *Geophysical* is a word that describes the study of the earth and the forces that affect or change it.

As the great research project began, groups of scientists set out to measure tides, chart the heavens, and probe beneath the earth's crust. They explored the Arctic and the Antarctic. They collected facts about earthquakes, hurricanes, droughts, and floods. Space ships and rockets were assembled for flights to record-breaking altitudes. Geographers took new measurements of oceans and continents. Engineers observed the sun and tested its rays, hoping to learn how the rays might be used to furnish power in industry.

During the IGY several nations explored Antarctica. The question then arose as to who should control the continent. In 1959 the twelve nations that had bases there during the IGY signed a treaty. They agreed that Antarctica should be kept free for scientific observation.

For years to come, scientists will share the facts collected during the International Geophysical Year. They believe that this sharing will give all nations a better understanding of the earth and its resources.

The Olympic games

Archaeologists, digging in Greece, made an exciting discovery in 1878. On the plains of Olympia they found the ruins of an ancient stadium. It proved to be the place where the Greeks of long ago had held athletic contests.

These contests, known as the Olympic games, first took place in 776 B.C. In these games the best Greek athletes engaged in wrestling, throwing a circular plate called a discus, chariot racing, and foot racing. The winners of the contests received olive wreaths and palm branches as emblems of victory and were hailed as national heroes.

The Greek Olympics were repeated every four years until 396 A.D. In that year the Romans, who then ruled Greece and other lands around the Mediterranean Sea, ordered the games to be stopped. The stadium in which so many champions had competed was later destroyed by an earthquake.

The discovery of the ruins at Olympia aroused the interest of a Frenchman named

Baron Pierre de Coubertin. "Let us hold the Olympic games again," he suggested. "We can invite the world's best athletes to compete. This will promote better understanding among nations."

Sports-minded people of many lands agreed, so the first modern Olympic games were arranged. They took place at Athens, Greece, in 1896. Since then the games have been held every four years except in wartime. Five thousand athletes from seventy-five countries met in Rome, Italy, in 1960, to take part in the Olympic games. These athletes competed in eighteen different sports, including many contests that were unknown to the ancient Greeks.

UNITED STATES PROJECTS

Some countries have special ways of strengthening ties with their neighbors. The United States, for example, carries on many activities to develop friendship and understanding with other countries of the world.

United States Information Agency

The United States government has a special office called the United States Information Agency (USIA). The purpose of this agency is to make the United States and its way of living better known to the people of other lands.

The USIA operates the Voice of America. The Voice of America is a world-wide radio network. The stations of the Voice broadcast programs of news, music, and entertainment. The broadcasts, presented in more than forty languages, reach listeners in nearly every country of the world.

For television viewers in other lands, the USIA prepares programs on motion-picture film. These movies, including news reels, are telecast in more than fifty countries.

Andersen from Black Star

This runner is carrying a torch, lighted in Greece, to the opening of the 1960 Olympics. The Olympic games are a symbol of peace.

The USIA sends daily news reports to the editors of newspapers and magazines in many countries. The reports are accurate and truthful, so editors are glad to have them.

In many foreign lands the USIA shows motion pictures about life in the United States. "American Cowboy" is one movie that has been very popular. Another is "How We Elect Our Representatives"—the men and women who make our laws in Congress.

These and many other USIA movies attract large audiences wherever they are shown.

Millions of people visit the libraries that the USIA operates in sixty-five countries. The libraries lend books about the United States, arrange exhibits of photographs and paintings from the United States, and play records of music by our composers. Trucks, boats, barges, and pack animals carry books from the libraries to people living in out-of-the-way places. USIA libraries also offer instruction in reading, writing, and speaking English. Nearly 100,000 people attend the classes every week.

Exchanging students and teachers

A teacher from India recently spent a year in the United States. He visited many of our colleges, art galleries, and museums and gave talks on the art of India. He was one of many thousands of teachers and students who have come to this country since World War II.

Meanwhile, large numbers of students and teachers from the United States have spent time overseas. One teacher from the United States who had this experience said: "People of different countries who live and work together develop feelings of friendliness. They lose their suspicion of each other. I made friends of people who never had friends from the United States before."

Foreign students and teachers say much the same thing about their visits in the United States. "I have been welcomed in many homes," said one visiting student. "I am returning to my country with a bag full of good will."

These words tell us why the United States government has encouraged the exchange of students and teachers. The exchange has helped to build understanding.

Adopting towns

During World War II, communities in the United States sometimes adopted, or took a special interest in, foreign towns. Each community that did this sent food, clothing, and letters of friendship to a war-torn town abroad.

After the war, the king of Greece made a speech about world understanding. He mentioned that he had heard about the adopting of towns. He said it would please him if a town in Greece could have ties with a community in the United States.

As a result of his speech arrangements were made for Tucson, Arizona, to adopt the town of Trikkala in Greece. The two communities are about the same size, and both are located on high, dry plains. So they have much in common.

To form bonds of friendship, Tucson and Trikkala exchanged scrapbooks and collections of letters. The people of Tucson raised money to bring two young people from Trikkala to Arizona. The Greek youths became students at the state university. From time to time the two visitors described their life in the United States on phonograph records. The records were sent to Trikkala and played in the town square for all the people to hear.

Tucson and Trikkala thus gained a warm feeling toward each other. Nearly 200 other communities in the United States and in other countries have had similar experiences.

BENEFITS OF WORLD UNDERSTANDING

All countries have stories to tell about how they have benefited from their contacts with neighbors in the world community. Three examples of these many benefits are to be seen in the experiences of the United States, the Philippine Republic, and Thailand.

The United States Constitution

The United States Constitution illustrates the advantages that come from the spread of ideas from nation to nation. The men who wrote the Constitution had learned much from the history of the freedom-loving peoples of Greece and England. The Constitution also contains many ideas developed in our own country.

Our Constitution has won the admiration of other countries. Some of them, such as the Latin-American nations and the Republic of the Philippines, have taken ideas from it and used them in their own constitutions. We are thus sharing our laws and ideals of democracy just as we borrowed some of them from other nations.

Self-government in the Philippines

The people of the Philippines gained many ideas from their years of association with the United States. After coming into possession of the islands following the Spanish-American War in 1898, the United States began to prepare them for independence. Schools were built, and Filipino children learned to read and write and were taught the meaning of democracy.

When the Filipinos were given their independence, they chose to establish a republic with elected representatives and a President at its head.

New ideas in Thailand

The man who did much to develop the Asian nation of Thailand so that it became a co-operative member of the world family of nations was King Rama IV. His reign began in 1851, when his country was known as Siam.

King Rama was eager to make his country as modern as the nations of Europe. He encouraged trade between Siam and European countries. By carrying on trade, his people would meet the people of the Western world.

King Rama also wanted his children to be educated. So he sent to Great Britain for a teacher. An English schoolteacher, Mrs. Anna Leonowens, agreed to go to Bangkok to instruct the king's children. Besides instructing them in arithmetic, English, and science, she taught them other things. She helped them to see the importance of being fair and just in their dealings with all people.

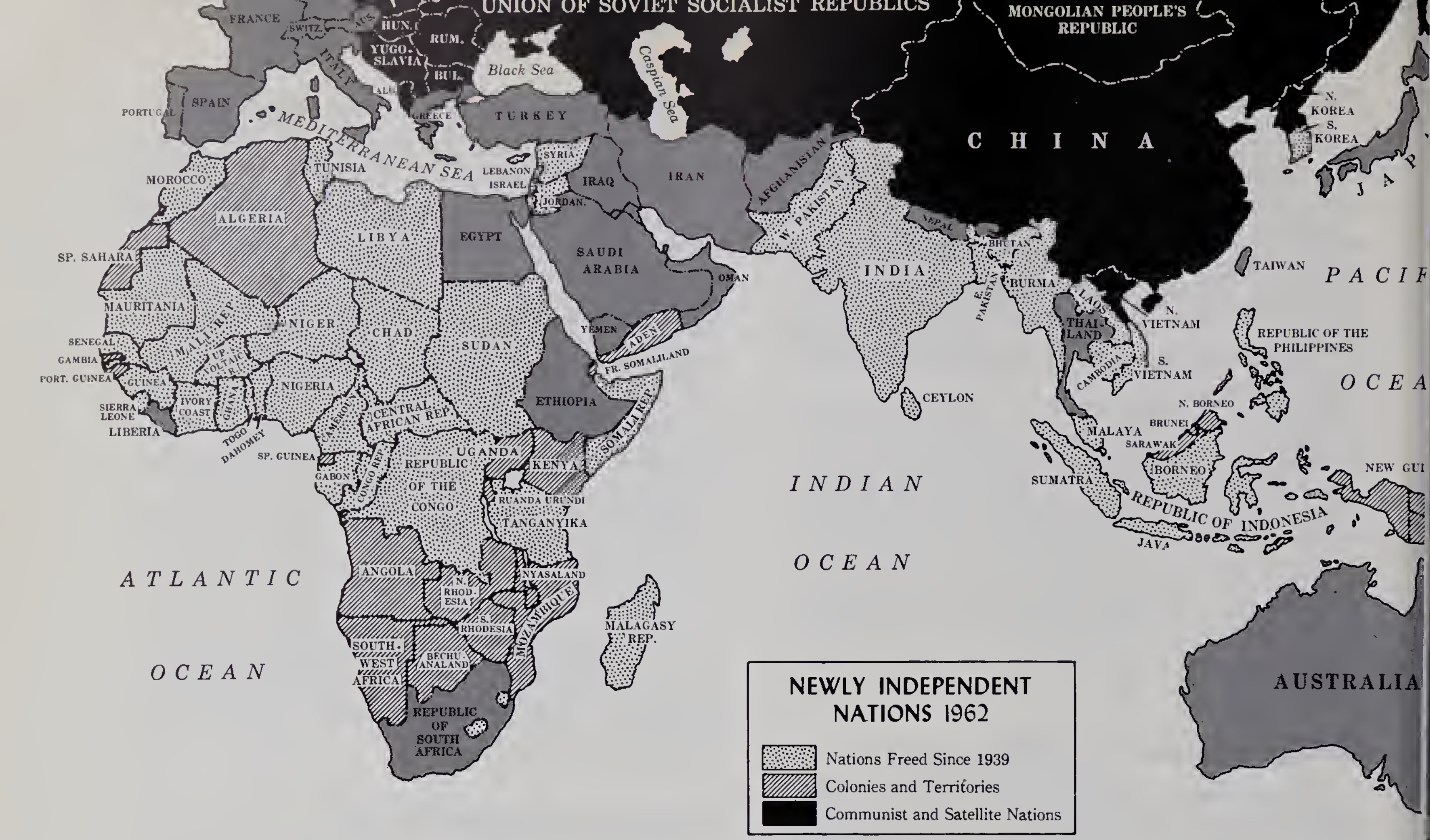
When one of Rama's sons grew up and became king, he showed that the teachings of his English school mistress had influenced his thinking. Under his leadership, Siam modernized its laws and courts. Slavery was abolished, and public schools were established in the nation.

Co-operation of individuals

There are many ways of building understanding in the world. Nations can do part of the job, but not all of it. The growth of understanding also depends on the efforts of millions of individuals. Nearly everyone can do something to strengthen ties of friendship between nations. All of us can help to secure and enjoy the benefits that come from better understanding.

Do you know—

1. What official document must a person have in order to travel abroad?
2. What do the initials AP stand for? UPI?
3. How do Scouts help to build world understanding?
4. What are the official languages used in the United Nations?
5. What was the International Geophysical Year? What did it accomplish in science? In international co-operation?



More than thirty countries have received independence since the end of World War II. Most of these countries are in Africa. Which African nations were independent before World War II?

3. IDEALS THAT NATIONS SHARE

On March 6, 1957, a familiar name was removed from the map of Africa. The land long known as the Gold Coast took the name of Ghana. On that date Ghana received its independence from Great Britain and became a republic.

THE DESIRE FOR INDEPENDENCE

Ghana sought independence for the same reasons that the United States and many other countries did in the past. The people of the African nation wanted to manage their own affairs. They preferred to solve the problems of Ghana in their own way, instead of having outsiders tell them what to do.

As independent people, the citizens of Ghana can develop their natural resources for their own benefit. Beneath the soil of Ghana lie deposits of gold and manganese. About half of the world's supply of cacao, used for making cocoa and chocolate, is produced in Ghana. The inhabitants of Ghana can themselves decide how to use the profits earned from the sale of the gold, manganese, cacao, copra, rubber, mahogany, and other products.

Ghana has joined the United Nations and sends representatives to its meetings. As a member of the community of nations Ghana shares in the quest for world peace.

People living in many parts of the world desire to be independent. Nations vary in size and in resources, but they are alike in the desire to solve their own problems.

The growing community of free nations

The roll of independent countries was not large in the eighteenth century (the years between 1701–1800). Most of these free countries were in Europe. Among them were Great Britain, France, Spain, Portugal, the Netherlands, Denmark, Sweden, and Russia. The United States gained its independence near the end of that century—the first country in the New World to do so. The list of free nations grew much longer with the spread of independence throughout the Americas in the early part of the nineteenth century.

Today the number of free countries is great because many lands of Asia and Africa have won independence in recent times. The rise of free nations has been especially rapid since World War II.

Like all independent nations, the newest members of the world community are extremely proud of their self-government. They are quick to resent outsiders who appear to be telling them how to manage their affairs. The free nations of Asia and Africa want the same opportunity to develop that other countries have had.

Looking ahead

There are still colonies in Africa, Asia, and the Americas. Most of these territories are sure to become self-governing as time goes on.

There are also nations that once enjoyed independence but lost their freedom to more powerful countries. In Europe, the Soviet Union has controlled East Germany, Poland, Czechoslovakia, Hungary, Rumania, and Bulgaria since World War II.

In Asia, South Korea is a free republic, but North Korea is a puppet of Communist China and the Soviet Union. South Vietnam is free, but North Vietnam is under the control of Communist China.

The puppet countries undoubtedly long for freedom. Hungary and Poland revealed this feeling in 1956, when many of their people revolted. Although the uprisings did not succeed in freeing Hungary and Poland, the people clearly showed how they felt about their lot. Like other peoples who have been compelled to live under foreign rule, they demonstrated their desire for independence.

THE QUEST FOR PEACE

Radio announcers interrupted programs to make special news broadcasts, and newspapers published extra editions. "German armies have invaded Poland," they reported. "Great Britain and France have declared war on Germany. They are going to the aid of Poland."

The date was September 1, 1939. It marked the beginning of World War II.

"How long will it last?" people asked one another. "How many lives will it take? How much will it cost?" No one could guess the answers, but it appeared likely that the war would grow and spread. There were many reasons to believe that it would become the worst war in history.

World War II did indeed fulfill these fears. Nations paid a terrible price in lives and money because they had failed to keep peace in the world.

From small conflicts to world wars

World War II was the largest of the many conflicts that have thwarted mankind's

PRINCIPAL RELIGIONS OF THE WORLD

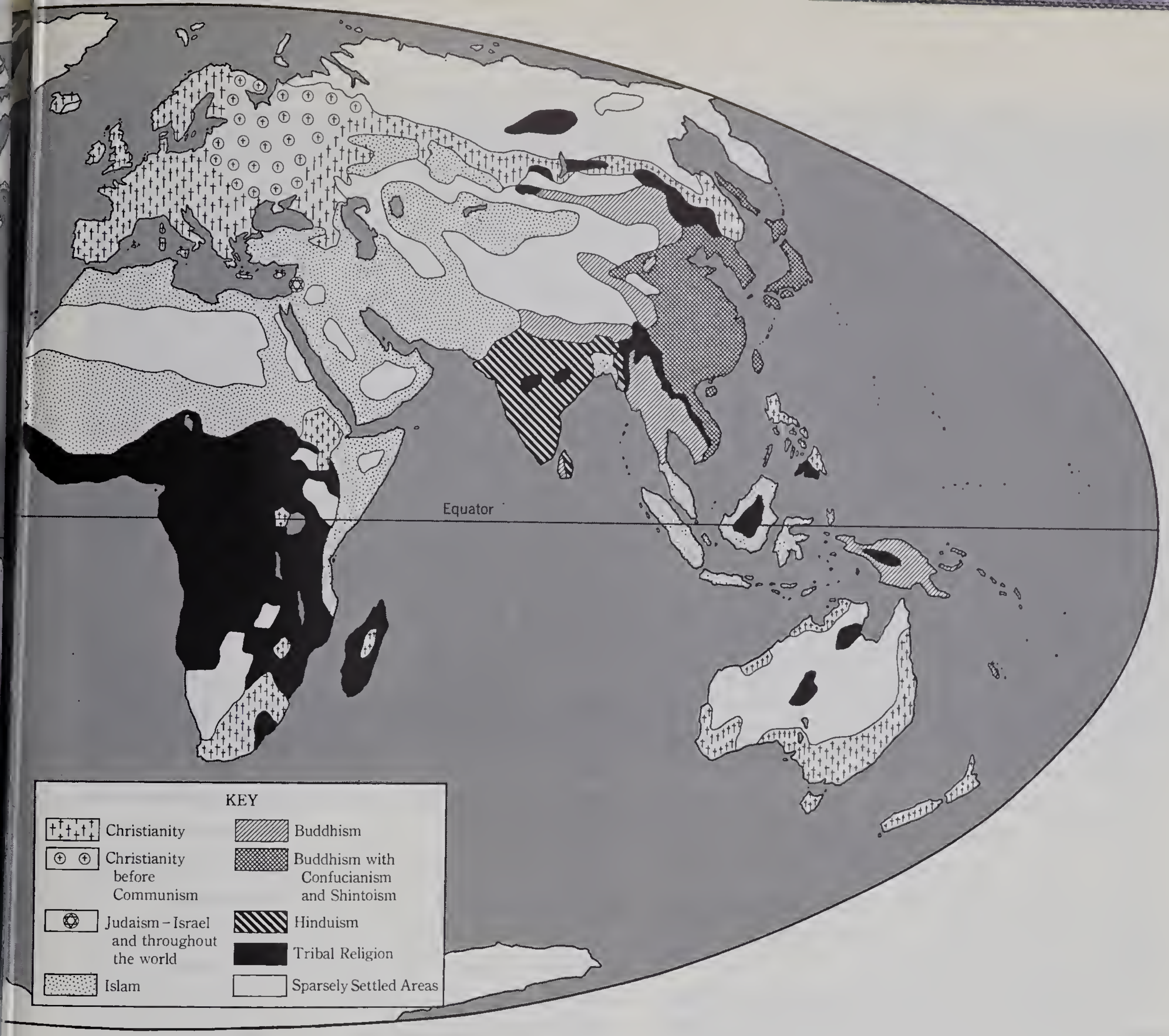
This map of the principal religions shows the way in which religious groups are scattered around the world today. The religions shown by symbols are not the only ones in each area, but they indicate which religion leads in an area.

desire for peace. Men have gone to war again and again since the beginning of time.

In primitive times hunter fought against hunter and tribe against tribe. With sticks, stones, and fists, the early people fought to gain possession of a slain animal, a good hunting ground, or an empty cave.

After tribes joined and after nations developed, conflicts arose between rival countries and kings. Ambitious kings became greedy for more power. They sought valuable land and other resources, such as gold, silver, and furs. As time went on, the desire for territory and resources continued to be a leading cause of war. But nations also found other reasons for clashing. They fought for the right to sail the seas and to carry on trade with distant lands. Wars arose over differences among people as to religion, race, and government.

During all this time, men developed new weapons with which to fight. Sticks and stones gave way to spears and lances. Later, soldiers fought with bows and arrows. The invention of gunpowder made warfare very deadly. Troops waged land battles with


Equator
KEY
Christianity
Christianity before Communism
Judaism – Israel and throughout the world
Islam
Buddhism
Buddhism with Confucianism and Shintoism
Hinduism
Tribal Religion
Sparsely Settled Areas

pistols, rifles, and cannons. Nations equipped ships with guns for battles at sea.

The most destructive weapons and military equipment of all time were assembled for World War I and World War II. In the first of these wars, armies used machine guns, long-range cannons, and armored tanks. For the first time airplanes flew in combat. They attacked troops on the ground and fought duels in the air. Submarines preyed on ships at sea, and tanks assaulted enemy positions.

In World War II, nations had all the weapons that were known in 1918 and many additional ones. Tanks and guns were larger and more powerful. Fleets of airplanes dropped earth-shattering bombs on cities. Submarines were more cleverly designed and more deadly. Two cities in Japan were the war victims of the first atomic bombs.

Wars thus grew from small struggles to world conflicts. They grew from hand-to-hand battles to wars of mass destruction.

A world often at war

Although the pages of history are full of the stories of war, no one knows how many have been fought. Many conflicts took place before records were kept. But we can observe how often nations have fought just by surveying the wars of the past 500 years or so. It is estimated that about 300 wars of varying size took place during this period.

Fifteen wars fought since the year 1480 were extensive enough to be called international conflicts. Each one involved the most powerful nations then in existence. World Wars I and II were the international wars of our century. The Korean War (1950–1953) involved a number of countries, but the fighting was held within Korea.

The costs of war

No one knows the cost of all the wars that have been fought. It is even difficult to measure the costs of World Wars I and II. But we know enough to realize that mankind has paid an enormous price for the failure to keep peace.

In World War I more than 10,000,000 died or were wounded. This is almost as many people as live in some of our most populous states and a larger number than inhabit many countries.

In money, the cost of World War I has been estimated at about $330,000,000,000. None of us can really imagine how much this is. But someone has calculated that a billion dollars in $100 bills would make three piles, each more than 1000 feet high. How many of these piles would it take to pay the costs of World War I? The United States alone spent as much during World War I as it had in paying all the expenses of the Federal government from the time it began to 1914.

World War II cost more than ten times as much money as World War I had cost, and it took the lives of more than 40,000,000 people. This is about equal to the population of our New England and Middle Atlantic states.

Even these figures from two world conflicts do not tell the whole story of the consequences of war. Numbers alone cannot describe destroyed cities, ruined farms and factories, and wrecked homes. There is no way to put a price on the injuries, the starvation, and the sorrow that millions of people have suffered in wars. The world cannot buy back the works of art, the historical buildings, and other treasures that have been lost.

The costs of war—in life, human suffering, money, and destruction—are truly beyond calculation. They represent so great a burden that men and nations have tried again and again to find paths to peace.

Man's efforts to keep peace

Man's first efforts to secure peace were made when early hunters and their families formed tribes. In thus joining together, the group put aside their differences. They learned to live in peace so that they might gain protection and other advantages.

After men settled in the great river valleys to farm, many tribes gradually made peace over larger areas. Since the rise of nations there have been many efforts to prevent war. Nations have tried to avoid wars by means of force, laws and agreements, world organizations, and *alliances*. An alliance is a partnership between two or more nations.

Seeking peace through force

From time to time ruthless military leaders and powerful nations have waged war and conquered neighboring lands. They have wanted, first of all, to gain land and other resources in order to enrich themselves. But some of them have united large areas under their rule and forced the people to live

Brown Brothers

Napoleon conquered much of Europe and held it for a time. But he met defeat in Russia. Other defeats came. In this picture a French artist shows Napoleon retreating from a lost battle.

under the laws they imposed. A few have even aspired to conquer the world.

Ancient Rome sent its armies into neighboring lands and brought the conquered peoples under its rule. The Romans began spreading beyond the Italian peninsula about 264 B.C. They made one conquest after another until they governed much of Europe, a wide stretch of North Africa, and parts of Asia.

Within this vast territory, which included most of the civilized world, the Romans ruled with a firm hand. They stationed soldiers throughout the empire to maintain order. Through the use of force, small conflicts were stamped out before they could develop into large wars.

By these means, the Romans maintained peace in their empire. For nearly 500 years they prevented the outbreak of a serious war. This was the longest period of peace that the world has known since man began keeping written records. It is often referred to as *Pax Romana,* or the Roman Peace.

There was a serious flaw in this kind of peace, however. People lived in peace not because they wanted to, but because they were compelled to. The empire fell apart when strong tribes invaded it from the north and brought war to the gates of Rome itself.

Since the time of the Romans, other strong rulers have conquered lands and held them under strict control for a time. Charlemagne ruled much of western Europe from 800 to 814. But after his death the empire was divided, and warring nations grew up.

Napoleon of France was another leader who gained control over a large part of

Europe. He had visions of uniting Europe under a peaceful, stable government. The trouble was that he loved conquest for the sake of conquest. Other nations regarded him with fear. They united to fight him and defeated him at Waterloo in 1815.

In recent times three nations have had ambitions to gain mastery over the world and to maintain peace by force. The leaders of Japan felt that they had a divine mission to accomplish this. For a time they did rule a large area in the Far East. But they aroused bitter hatred among the conquered peoples before their downfall in World War II.

Adolf Hitler had a similar experience. "Today we own Germany, tomorrow the whole wide world" was one of his boasts, and he was ruthless in his efforts to carry out his plans. He, too, made many enemies, even among his own people. Like Napoleon he was so busy waging war that the people were never allowed to live in peace.

A third nation with dreams of gaining world control and establishing peace on its own terms is the Soviet Union. Josef Stalin was its all-powerful dictator for twenty-nine years. Under his rule the Russians gained much territory. But Stalin died in 1953 without having won world domination and without contributing to permanent peace. Even before he died, Yugoslavia had broken away from his control. His successors have had to deal with serious uprisings by the discontented people of Hungary and Poland.

Throughout history the attempts to establish peace by force have proved that this method is neither desirable nor workable.

Seeking peace through alliances

The making of alliances, or partnerships, is a second method by which both cities and nations have sometimes tried to preserve peace. The members of alliances agree to work together for their own defense and hope thereby to discourage enemies from starting wars.

The city-states of ancient Greece made alliances for these purposes. So did the German trading cities of the thirteenth century (1201–1300). These alliances were useful for a time but did not succeed in keeping the peace over a wide area.

In 1815 Austria, Prussia, Russia, and France formed an alliance. Being four in number, they called their group the Quadruple Alliance. One of their goals was to prevent wars of revolution in the New World. But the alliance did not succeed in its purpose. All the Latin-American colonies became independent in the ten years after the formation of the Quadruple Alliance.

Two strong alliances came into existence just before World War I. These were the Triple Alliance, made up of Germany, Austria-Hungary, and Italy, and the Triple Entente, made up of Great Britain, France, and Russia. The members of the one alliance tried to build military strength equal to the armed might of the other alliance. This was an attempt to create a *balance of power*. It was believed that the members of the alliances, having nearly equal power, would be unwilling to go to war. Instead, the alliances helped to bring on World War I.

The alliances made after World War I also failed to prevent World War II. The alliance of the Axis nations—Germany, Italy, and Japan—was, in fact, designed to wage war rather than to preserve peace.

The making of alliances has continued since World War II. The most important of these is called the North Atlantic Treaty Organization (NATO). Seven free nations of North America and Europe formed NATO in 1949. Later, the alliance was enlarged to fifteen members.

As partners, the NATO countries have agreed to act together for self-defense. If any one of them is the victim of aggression, or attack, the others will go to its aid. NATO was set up especially to guard against one possible aggressor—the Soviet Union.

Two alliances similar to NATO exist to safeguard certain free nations bordering on the Pacific Ocean or located in the Far East. The United States and seven other countries belong to the Southeast Asia Treaty Organization (SEATO). Australia, New Zealand, and the United States formed another alliance called the ANZUS Pact. The name of the pact comes from the initials of the three countries. The members of both SEATO and the ANZUS Pact are pledged to be allies in case any of the member nations comes under attack.

In the Western Hemisphere the United States and the nations of Latin America are banded together in an alliance. They, too, have a treaty that calls for co-operation in meeting any threat of war.

NATO, SEATO, the ANZUS Pact, and the Western Hemisphere alliance have avoided one weakness of many past alliances. They have not become the means of organizing nations to begin wars. The members of these groups have shown a strong desire to avoid war.

However, even the best alliances involve a certain risk. There is always the danger that the making of one alliance may lead to the forming of an opposing alliance. Later, as in World War I, the members of the rival groups may clash.

The United States and its allies weighed this risk. They finally agreed that the danger of aggression from Communist Russia was too great to ignore. They felt they would be safer by joining together for mutual protection. Their action may have kept the Soviet Union from starting wars.

Seeking peace through agreements

The most thorough way in which nations have tried to avoid war is by making laws and peace agreements. An early effort of this kind was undertaken in Europe during the tenth century (901–1000). William V of Aquitaine, a French lord, sponsored a plan called the "Peace of God."

The nations agreeing to this plan promised to restrict their warfare. They agreed not to destroy church property and forbade attacks on clergymen, women, children, merchants, and peasants. Later, there was a "Truce of God" that required soldiers to cease fighting on week ends and religious holidays. The "Peace" plan and the "Truce" thus limited fighting but did not prevent wars. They served a purpose for a time, but they were discarded because nations would no longer abide by the rules.

However, the idea of setting up laws to bring about peace between nations was not forgotten. It was revived in 1625, while Europe was torn by the Thirty Years' War. The brutality of the war greatly disturbed a Dutch lawyer named Hugo Grotius. After much reflection he wrote a book called *The Law of War and Peace*. In this he said that nations, like men, should obey certain laws. For having urged this, Grotius became known as the father of international law.

Another man who contributed ideas for building a more orderly world was Jeremy Bentham of England. In 1789 he suggested that nations should voluntarily agree to reduce the size of their armies. If this were done, he believed, there would be less danger of war. Nations with small armies might be less likely to fight than nations with large numbers of soldiers.

A plan like Bentham's was discussed at a world meeting in 1899. Twenty-six countries sent officials to this meeting, which was held at The Hague, in the Netherlands. It was the first large gathering ever arranged for the purpose of exchanging ideas on world peace. The Hague Conference did not bring about an agreement to limit the size of armies and navies, but the delegates did draw up rules for nations to observe in time of war. These rules dealt with such matters as the protection of churches and hospitals and the treatment of war prisoners. Some of the ideas suggested by Hugo Grotius in 1625 were thus carried out.

Between 1899 and World War II there were several more attempts to get nations to disarm. None of these efforts was really successful. Five countries agreed to limit their navies, but one of them—Japan—broke the agreement. Sixty-two countries signed a treaty saying that they would not go to war, but this promise also was violated.

The most effective agreements for the promotion of peace have involved the founding of world organizations. Three of these are the Organization of American States (OAS), the League of Nations, established after World War I, and the United Nations, which came into existence at the end of World War II.

The Organization of American States

In 1889 the United States government invited the nations of Latin America and Canada to a meeting in Washington, D.C. At the meeting, representatives from nineteen American nations, including the United States, were present. They discussed their common problems, especially those of trade. The meeting resulted in the founding of an organization called the Pan American Union, with headquarters in Washington, D.C. Since that time the organization has grown in importance. It is now called the Organization of American States (OAS). The Pan American Union is one the agencies of the Organization of American States.

Members of OAS hold large meetings every four years or so and smaller sessions more frequently. At these meetings the delegates discuss problems of trade, transportation, health, education, and defense. Plans are laid for co-operation to meet any attack that might be made on the Western Hemisphere.

When trouble develops between nations in the Americas, the OAS tries to settle the disputes peacefully. Every effort is made to keep disputes among hemisphere neighbors from growing into wars. There have been many such disputes and a few armed conflicts, but the OAS has prevented long and costly wars. Thus it has contributed much to the peaceful progress of the American nations.

The League of Nations

At the close of World War I, the leaders of the Allied nations met in Paris to discuss the restoring of peace. They agreed on the terms under which the nations defeated in the war must live. The delegates also recommended that all nations, winners and losers alike, should organize a league to maintain world peace.

This idea was carried out in 1920 when the League of Nations was established, with headquarters in Geneva, Switzerland. Officials representing forty-eight nations attended the first meeting, held in November of that year. In this meeting and at later sessions, the delegates discussed many world problems. These concerned the territories taken from the defeated nations, help for people made homeless by the war, and the return of war prisoners to their homelands. Ways of encouraging world trade and of improving health conditions also received attention. Such matters as these were taken up in order to make the world a better place in which to live.

Most important of all, the League of Nations concerned itself with disputes that arose between nations. Members of the League were often reminded that they had promised to try to settle their quarrels by peaceful means.

To handle disputes that involved world laws, the League set up an International Court of Justice. Nations could take their differences to this court and ask for legal advice. The fifteen justices who made up the court advised the nations and thus helped to work out peaceful agreements.

For a time the League and the Court seemed to be guiding nations along the road to peace. The League was showing nations how they could work together in new ways to solve economic problems. It also encouraged the making of treaties that called for smaller armed forces and for promises not to wage war.

Unfortunately, however, the League had serious weaknesses. For one thing, the United States had not joined the League and therefore did not take a real part in its activities. Other strong nations that did belong were unwilling to depend on the League for help in settling serious disputes.

When Japan seized Manchuria in 1931, for example, the League of Nations condemned the Japanese but did little else. Japan simply withdrew from the League and continued its aggressions in other parts of China. Hitler took Germany out of the League and began his warlike moves, and the League did nothing to stop him. When Italy attacked Ethiopia, the League merely condemned the action. Italy resigned from the League and continued its campaign of conquest.

Without the backing of its members, the League had little power to deal with these threats to peace. As World War II came closer, the League stood by, weak and ignored. Since it had failed to prevent small wars, nations realized that the League could not halt a world conflict.

The United Nations

World War II made people see the need for a better and stronger organization than the League of Nations. The first great war of the twentieth century had been costly in terms of lives lost, property destroyed, and money for armaments. The second war was many times worse. Civilization might not survive a third war, fought with even more destructive weapons. The importance of keeping peace after World War II was thus greater than ever.

Realizing this, President Roosevelt and British Prime Minister Winston Churchill began thinking of a plan for peace. The two leaders met aboard a warship on the Atlantic Ocean in August, 1941. At the end of their meeting they issued a document called the Atlantic Charter, which listed certain goals of freedom-loving nations. One of these goals was the building of an efficient peace organization.

On January 1, 1942, delegates of the twenty-six nations who were at war against Germany, Italy, and Japan met in Washington, D.C. The delegates signed a declaration in which they promised to uphold the goals of the Atlantic Charter. Thus, they guaranteed to help found a world organization.

While the war continued, planning meetings were held to discuss the kind of organization that might be set up. This work paved the way for the holding of a large meeting in April, 1945, in San Francisco. There the delegates of fifty nations met and debated rules for a world organization. After two months of hard work, the San Francisco Conference completed a charter, or constitution, for a new peacetime organization. It was called the United Nations.

By October 24, 1945, a majority of the countries that had helped to write the United Nations Charter had signed it. So the world organization officially came into existence on that date.

The first meetings of the United Nations were held in 1946, and New York City was chosen as the headquarters. Buildings were constructed to provide offices and meeting rooms for the groups that make up the UN.

The largest conference room belongs to the General Assembly, which holds meetings once a year. The members of the United Nations send delegates to the Assembly. The delegates debate world problems and exchange views on ways to keep peace.

The Assembly and other United Nations agencies have undertaken to promote peace and progress in many ways. As you know, the United Nations has encouraged the sharing of ideas and technical skills. This sharing is based on the belief that nations making progress toward a better standard of living will want to preserve peace.

The United Nations also has arranged a series of meetings for the discussion of disarmament plans. At these meetings delegates have tried to work out means of reducing the size of armies, navies, and air forces. No quick and easy solution to this problem has been found because nations want a plan that will really work. They do not want a treaty that might soon be broken, as was done before World War II.

Finally, the United Nations has taken a hand in helping to settle many disputes. Here are some examples of how the United Nations has tried to keep serious conflicts from growing into world-wide struggles.

(1) In 1947, after Great Britain had given up control over Palestine, the United Nations tried to divide the land between Arabs and Jews. Arabs living in and near the Mediterranean land were not satisfied with the plan. They wanted Palestine to be an Arab country. The Jews were not satisfied either. They had been given much of Palestine and were governing it as the new nation of Israel, but they felt they needed more territory.

A war broke out between the Arabs and the Jews and continued until United Nations representatives arranged a truce. Although there were still outbreaks of fighting from time to time, the war had been stopped before it involved other countries.

(2) In the summer of 1950 the United Nations faced its most serious crisis. Communist forces from North Korea, with the help of Communist China and the Soviet Union, attacked South Korea. The United Nations called upon its members to furnish troops for an army that would go to the defense of South Korea. The United States and fifteen other nations sent troops, and twenty-seven nations sent military supplies.

This war lasted three years and was costly in money and lives. But when a truce was arranged in 1953, South Korea still existed as a free nation. It had not been conquered by an aggressor, as Manchuria and Ethiopia had been in the 1930's. The United Nations had demonstrated that, unlike the League of Nations, it could halt troublemakers. The world had seen troops under the United Nations stop aggressors before their actions could lead to a world war.

(3) In 1956 Egypt seized control of the Suez Canal from Great Britain and France and showed hostility toward near-by Israel. The British and the French moved to retake the canal, while Israel sent troops into Egyptian territory. During the fighting that followed, ships were sunk to block the canal.

The United Nations arranged a truce to halt the fighting. A United Nations Emergency Force, composed of soldiers from nine neutral countries, was formed to supervise the truce. With the Emergency Force on hand, the nations engaged in the conflict agreed to cease fighting.

From these examples of the United Nations at work, we can see that it has moved into action before the trouble became worse. By doing so, the United Nations tries to keep small conflicts from growing into large wars.

Looking ahead

The success of the United Nations really depends on the attitude of its members. They have had many serious differences among themselves. At times their disputes have kept the organization from accomplishing as much as it might have. But as long as most countries are willing to stay in the United Nations and support it most of the time, it has a chance of reaching its goal—the prevention of World War III.

Do you know—

1. On what two continents have many new nations emerged in recent times?
2. What was the League of Nations?
3. How successful has the United Nations been?

TO HELP YOU LEARN

Words and Terms to Remember

free trade
literacy
alliance
passport
Pax Romana
geophysical
balance of power
life expectancy
per-capita income

A Matching Game

Number a paper from 1 through 9. After each number write the word or term from the list above which matches the definition.

1. The ability to read and write
2. The number of years that the average new-born baby will live
3. The exchange of products between countries without tariffs and customs duties
4. The average amount of money each person receives yearly in a country
5. A partnership between two or more nations
6. The long period of peace maintained under the Roman empire
7. A government document, which gives a citizen permission to travel abroad and which serves to identify him
8. A distribution of power in which two groups of nations have ability sufficiently even to keep either from being too strong or dangerous
9. Having to do with the study of the earth and the forces that affect it

Finding the Facts

1. Why do nations import goods? What do a nation's exports tell about its products?
2. What conditions have made it possible for the United States to produce a variety of goods and products for export?
3. What benefits does the St. Lawrence Seaway bring to Canada and the United States?
4. Why would world-wide air travel be impossible without co-operation among nations?
5. Why do certain countries of western Europe co-operate in running their coal mines and steel mills?
6. What is the World Bank? How do nations use the bank?
7. What connection is there between the literacy of a people and their standard of living?
8. Compare two countries where the life expectancy is long with two where it is short. What accounts for this great difference?
9. Discuss the principal ways in which the United States has shown its interest in underdeveloped countries and their problems.
10. How does world travel help to promote understanding? Why is the exchange of news necessary to build a better world?
11. Why are the Olympic Games helpful in promoting understanding among nations?
12. What is the purpose of the United States Information Agency? Give three examples of how the agency operates.
13. What advantages does a country gain when it obtains its independence? What responsibilities does it have?
14. How do the nations in an alliance hope that their partnership will prevent war? What risks or dangers are involved in the making of an alliance?
15. What is the Organization of American States? How has it contributed to progress in the Western Hemisphere?
16. Discuss how the United Nations was formed. What is its chief purpose?

Using Maps

1. Study the map on pages 472–473 and answer these questions: Which continents have the largest number of railroads? Point out islands that have many railroads. Since these are highly industrialized regions, what conclusion can you draw about the relationship of railroads to industry?
2. Turn to the map on page 474. Across what ocean are the world's greatest shipping lanes found? Can you explain why?
3. Look at the globe on page 476. Which continents are served by the largest number of air lines? Is there a relationship between the number of air lines and the population of the areas served?

Can You Find the Right Order?

Arrange the events below in the order in which they occurred.

1. The beginning of World War II
2. A period of peace maintained throughout the Roman empire
3. The United Nations organized
4. The Pan American Union formed
5. The League of Nations established
6. South Korea saved from conquest by United Nations forces
7. Meeting of F. D. Roosevelt and Winston Churchill to write the Atlantic Charter
8. First Olympic Games

Making a Summary

At the close of Unit 10 you made a summary of a portion of the text. The brief statement that you wrote in your own words summed up what had been said in several paragraphs.

Make a summary of the section entitled "The need for improved skills," pages 477–479. Reread the section and jot down the main points. Now rewrite these points briefly. Use only the number of sentences necessary to express the meaning clearly. Then compare your summary with the text to see how well you have covered the main points.

Interesting Things to Do

1. Plan a trade fair to display the products of different countries. Among the things that you might bring from your homes to put on display are glass or cutlery from Sweden, foods or pictures of foods from many lands, a clock or watch from Switzerland, tulip bulbs from the Netherlands, toys from Germany and Japan, a linen handkerchief or towel from Ireland, and so on. Each item should be labeled with the name of the country that exported it.
2. Write to the United Nations, New York, N.Y., and ask for leaflets and posters showing how the UN is helping the people of many countries to overcome handicaps.
3. Members of the class who belong to the Boy Scouts, the Girl Scouts, the Camp Fire Girls, or the Junior Red Cross can present a program that demonstrates how these organizations contribute to world understanding. Each group might dramatize the story of its organization's efforts to build friendships among young people of many lands.
4. Ask the postmaster of your community for a list of the countries that belong to the Universal Postal Union. Members of the class who are stamp collectors can bring stamps from these countries and group them to form an attractive display.
5. Using the reference books in your library, list the projects in which scientists engaged in the International Geophysical Year and the countries that took part in it.
6. If you would like to develop ties with students of other countries, write to the United States Committee for UNICEF, United Nations, New York. A second organization to which you may write is the American Junior Red Cross, Washington, D.C. Ask for suggestions about projects which will help you gain a better understanding of people in other parts of the world.

Things to Think About

1. Is it wise for a nation to try to sell goods to other nations without accepting imports from them? Why or why not?
2. The United States has sent money (some as gifts and some as loans), trained men, machinery, and other things to many countries since World War II. Have we a right to expect special benefits or advantages as a result of this aid? Or should we look upon our help as a means of building a stronger, free world? Explain your answer.
3. What new or different efforts would you like to see the United States undertake in order to help prevent war? How do you think that you as an individual, now or later, might help to further world peace?

Making a Graph

Here is a list of fifteen nations representative of different regions of the world and the life expectancies of their people.

Argentina, 60 years
Australia, 70
Cuba, 50
Denmark, 71
Great Britain, 71
India, 42
Japan, 67
Mexico, 50
Peru, 46
Philippines, 51
Sweden, 73
Switzerland, 69
Thailand, 50
Turkey, 60
United States, 70

Make a bar graph, composed of squares, to show the life expectancies of each nation. Let each square represent five years. If a period of less than five years is to be shown, use part of a square only.

For example: Cuba □□□□□□□□□□ India □□□□□□□□▯

Ewing Galloway

Acme

12. The United States in World Affairs

On a frosty day in October, 1776, Benjamin Franklin put on his heavy cloak, donned his fur cap, and walked out of his home in Philadelphia. He was starting on a long trip, for he had accepted the responsibility of going to Paris, France, as a representative of the United States.

The new nation, hard-pressed in its war with Great Britain, wanted Franklin to seek a treaty with France. If an agreement could be made, the two countries would be allies. With France as a partner, the United States would be in a much stronger position.

"Will the leaders of the French government agree to a treaty with us? How can I get them to sign such a treaty?" These were the questions in Franklin's mind during his long voyage across the Atlantic Ocean. No one knew better than Franklin how great the odds were against the infant republic that he represented. But when he arrived in Paris, he was greatly encouraged by the friendliness of the French people.

Wherever he went in the French capital, he was warmly greeted. The French had heard about his experiments with electricity, and some of them had read books that he had written. Now they were delighted to see him in person—a plainly dressed man, carrying a walking stick, and wearing square-rimmed spectacles on his kindly face. Everyone wished him well on the important mission he had undertaken for his country.

Leaders of the French government were glad to see Franklin, too, and some of them wanted to make the treaty that he sought. They understood the desire of the United States for freedom. Moreover, they would not be sorry to see their old rival, the British, lose territory in the New World.

Nevertheless, the French hesitated about taking sides in the conflict. They had heard that the war was going badly for the United States. They did not want France to become the ally of a nation that was in serious danger of defeat. The most that France could do, for the time, was to lend the United States some money and to send military supplies.

Then good news reached France. Late in 1777 the United States won an important battle. Now its chances of winning the war were greatly improved. The French people went wild with excitement. When the French king heard of the victory, he sent word to Franklin that he would recognize the independence of the United States. A treaty between the two nations was soon arranged.

February 6, 1778, was set as the day for announcing the treaty to the world. The French made the occasion a gala one. Flags were flying and drums were beating at the palace of King Louis XVI. French lords and their ladies, dressed in fine satins and silks, were present at the ceremony. But as the treaty was signed, all eyes were on the man in the plain velvet suit and knee breeches.

The world was now informed that France had become an ally of the young republic across the Atlantic. While still fighting for its independence, the United States had gained a partner in the family of nations.

In this unit you will find the answers to the following questions:

1. How did the United States as a young nation survive?
2. How did the United States become a world power?
3. How does the United States work for world peace?

Benjamin Franklin was much admired by many people in France because of his numerous scientific discoveries. His humor and his wisdom as a statesman made him a favorite at the French court.

Library of Congress

This painting by John Trumbull shows the surrender of Cornwallis' army at Yorktown in 1781, ending the War for Independence. The Americans were led by Washington and Rochambeau.

1. A STRUGGLING YOUNG NATION

The War for Independence continued for more than three years after the United States and France became allies. In October, 1781, the fighting ended when General Cornwallis surrendered at Yorktown, Virginia. Two years later a peace treaty was arranged between the United States and Great Britain.

The United States had joined the ranks of free nations. Its people could make their own laws, levy their own taxes, and develop their resources. A great opportunity lay ahead, but they also faced great problems.

Forming a Constitution

One problem concerned the kind of government to be established. The Articles of Confederation under which the young nation had been living was weak and inefficient. To secure a stronger government, the leaders of the new nation met in Philadelphia and wrote a new Constitution in 1787. George Washington, chosen as the first President, was inaugurated in New York City, in April, 1789. A new nation had been born.

The nation of which George Washington was President covered all the territory between the Atlantic Ocean and the Mississippi River except Florida. In 1790, when the first census was taken, it was the home of less than 4,000,000 people. They lived on scattered farms and in small towns. Some of the towns along the coasts were growing, but they still had not become large cities.

When Washington became President, New York City had 32,000 people. Philadelphia, the largest city, had 42,000. The new government had difficulty in paying its debt to France, and there was little money with which to meet other expenses. Consequently, the government could not afford to keep a large number of men in an army to protect the country. Ships cost so much that the United States had no money to build a navy.

This worried President Washington and others of the nation's leaders. They wanted to protect the land and liberties which the people had gained. They hoped the United States would show the world how a free people could work together and govern themselves. Before this no nation had ever set up a government in which the people themselves would choose their leaders.

Adopting a policy of neutrality

Unfortunately, the United States could not count on the Atlantic Ocean for complete protection. Although it was wide and difficult to cross, the nations of the Old World had navies. Armed sailing ships could attack our coasts and put soldiers ashore for land battles. Consequently, when war broke out in Europe in 1793, President Washington consulted with his advisers in the Cabinet. He then issued a statement declaring that the United States would be neutral. That is, it would not take sides in the war. This was an important decision, and it became the policy, or plan, of our country's relations with the world which continued for years.

When Washington was finishing his second term as President, he again advised the United States to remain neutral. He urged the people of the United States not to get mixed up in the quarrels of the Old World nations.

The Presidents who came after Washington agreed. They, too, wished to stay out of war. Even when warring nations made trouble for the United States, government leaders urged citizens to be patient.

Fighting for freedom of the seas

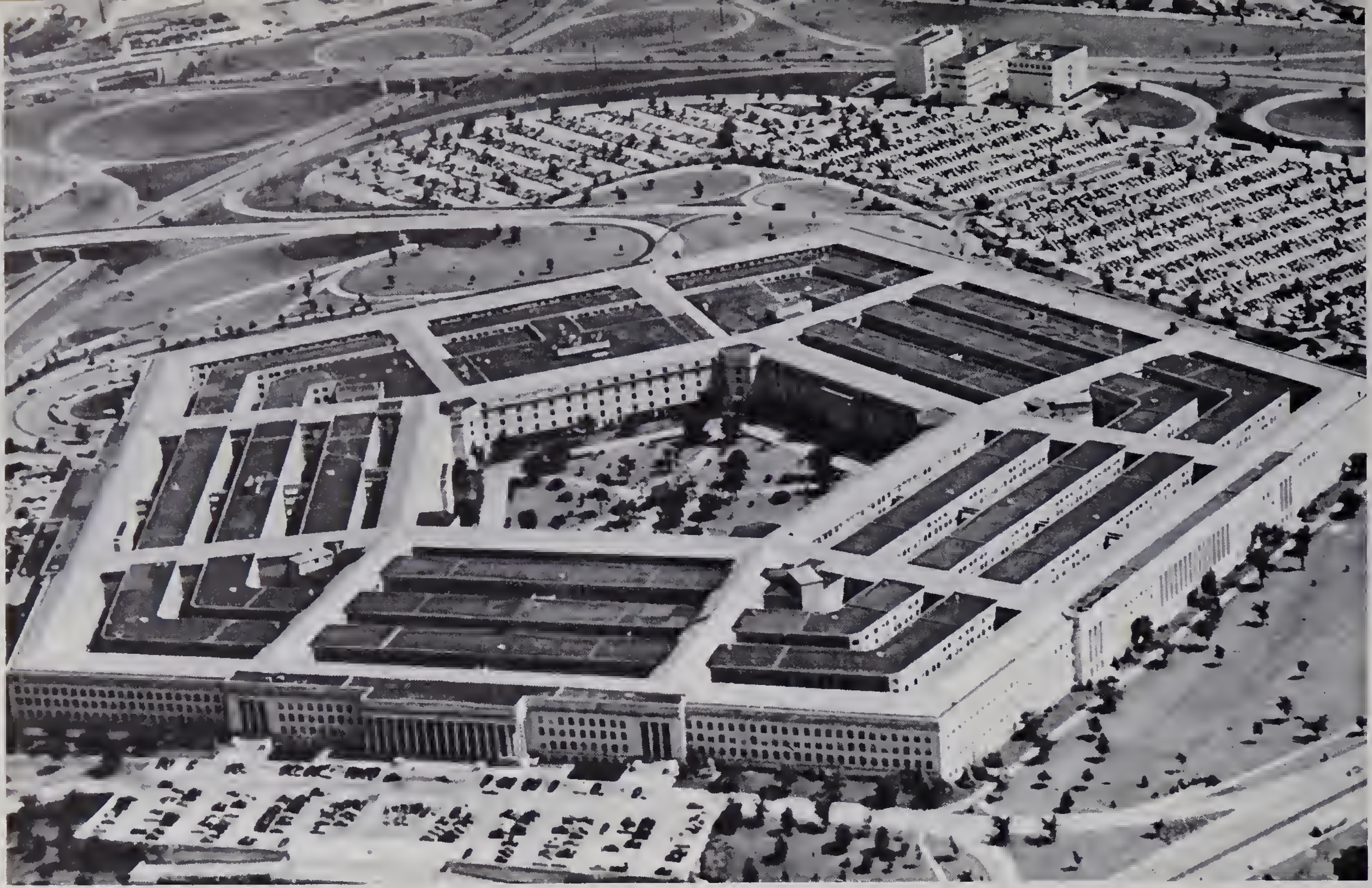
The war in Europe began to hurt the United States and its people more and more. The first to suffer were the farmers and the traders who were shipping food and other products to Europe. Their cargoes went to customers in Great Britain and France. The British began to stop United States ships going to France and to take the cargoes from the ships. They seized the sailors who were aboard, claiming they were British subjects. The French halted our ships which were en route to Great Britain.

The people of the United States became aroused at these incidents. Since the British were causing the most trouble, Congress declared war on Great Britain. The war began in 1812 and lasted for two and one-half years.

Several times, the United States was in danger of going down to defeat. On land the British soldiers moved in from Canada, defeated our troops, and captured Washington, D.C. Eventually the British were driven out, and our armies began to win some battles. On the sea we were greatly outclassed. The United States had but seventeen ships, none of which were battleships, but the British navy had nearly one thousand fighting vessels. In spite of this, we did some damage to British commerce and we won victories on the Great Lakes. The nation was saved chiefly because the British, busy fighting elsewhere, became tired of the war in North America, and especially of the money which the war was costing. Late in 1814 a treaty of peace was signed.

The War of 1812 taught the United States an important lesson. Our nation learned that war spreads from one part of the world to another. Although a country may prefer to stay out of the fighting, it cannot always do so. There are many ways in which it can become involved. In the War of 1812 the United States felt it was necessary to fight for the right of its ships to sail the seas.

Europe also learned a lesson from this war. When the United States was not crushed by the greatest naval power on earth, the whole world was astonished. The nations began to realize that the United States was a rising power and deserved their respect.



Ewing Galloway

The National Defense Building, just across the Potomac River from Washington, D.C., is the world's largest office building. Can you see from the picture why it is often called the Pentagon?

2. A RISING WORLD POWER

After the War of 1812 the people of the United States began to see that a great future lay before them. They could load their products on ships and safely send them to all parts of the world. It was a good time to work at the tasks of clearing farms, planting crops, building homes, and starting new industries.

People began to move farther inland. They pushed westward into forests and valleys which had never been settled. There was plenty of room in which to spread out. Nevertheless, the nation's leaders dreamed of adding more territory to the country. Very early they began to think of widening the boundaries of the United States.

European nations were anxious to keep the lands that they still held in the New World. They wanted more of the gold, furs, and other riches which the Americas could supply. Spain wanted to put down the revolutions in its Latin-American colonies. France announced that it was willing to help Spain in this campaign. Russia, which owned Alaska at that time, was beginning to explore and claim land southward on the Pacific coast.

Assuming leadership in the Americas

The attitude of Spain, France, and Russia alarmed the United States. If these nations should put troops into any part of the Western Hemisphere, they might eventually attack us. Seeing the danger, President James Monroe gave a bold warning.

In 1823 he told the nations of the Old World to keep hands off the Western Hemisphere. He said that European nations could no longer plant new colonies in North and South America. President Monroe also told Europeans not to invade the new nations of Latin America.

The warning, which became known as the Monroe Doctrine, had the backing of Great Britain. The British did not want Spain to regain control of the newly independent countries of Latin America. The British likewise opposed the ambitions of France and Russia to win new or greater advantages in the Western Hemisphere. Monroe's warning gradually won the respect of Europe.

The Monroe Doctrine showed that the United States government realized that a threat to one land in the Western Hemisphere was a threat to all. The United States had taken an important step toward becoming a leader among free nations.

Growing on land and sea

The United States' dream of settling the land from the Atlantic to the Pacific began to come true. The nation grew by obtaining first one piece of territory and then another. The census of 1850 revealed that the nation had more than 23,000,000 people. By that time the United States extended from the Atlantic to the Pacific and from Canada to Mexico.

Many people chose to stay in the East, where cities and industries were growing. Others decided to try their luck in the West, where fertile prairies in the Middle West and California gold beckoned. The nation offered a variety of opportunities to people of many occupations—to farmers and miners, teachers and lawyers, carpenters, merchants, and mechanics.

Then in 1861 the War Between the States broke out. The fighting was costly in lives and money, and it divided our country. When the war came to an end, the nation was reunited, and the people faced the world under one flag again. Since then we have stood together against all foes who might endanger our land and our freedom.

During the fifty years following the War Between the States, the United States grew and changed in many ways. The world was amazed at the speed with which our people cleared away a wilderness and developed the land. Small factories grew into big industries. Trains steamed across the continent. With immigrants steadily arriving, the country had nearly 76,000,000 people in 1900.

By 1900 the flag of the United States flew over territories far from our shores. The United States had purchased Alaska from Russia and had annexed Hawaii. After a war with Spain we had gained the Philippines and other islands in the Pacific and Puerto Rico in the Atlantic.

Trade with other lands had always been important to the United States, and now it was still more profitable. We carried on business with nations in all parts of the world. Our ships crisscrossed the oceans, going and coming with bulging cargoes of goods.

Shipyards built faster vessels to save time on voyages, and sea captains looked for shorter routes. The route that they were most anxious to shorten was the one from the Atlantic to the Pacific. Their dream came true with the building of the Panama Canal. It was finished and opened to ships of all nations in 1914.

The people of the United States were proud of the canal. It was a sign of progress. The United States was now one of the most powerful nations in the world.

3. WIDENING RESPONSIBILITIES

The growing strength of the United States was again to be tested. In 1914 World War I broke out in Europe. The people of the United States wanted to stay out of the conflict. We felt that the quarrels of Europe were not our concern. We decided to remain neutral. But we soon discovered that warfare at sea endangered our citizens and our ships.

Our part in World War I

Our government had to make a difficult choice: (1) We could keep our ships at home so that they would not be fired upon and sunk. (2) Or we could insist that our ships could sail the seas without being molested.

It was decided that our citizens and vessels would continue to travel to European ports. We told the fighting countries that we expected them to leave our ships alone. Just as in the War of 1812, we demanded our right to freedom of the seas.

The warring nations, however, did not heed our warning. British warships patrolled the coasts of Europe and halted vessels that were headed for Germany. The Germans roamed the ocean in submarines and sank vessels bound for Great Britain and France. President Woodrow Wilson realized that we must defend our right to sail the seas.

In April, 1917, the United States declared war on Germany and its partners in Central Europe. Great Britain had stopped ships and sometimes had seized their cargoes. But Germany had torpedoed unarmed vessels and many lives had been lost. Moreover, Great Britain and France believed that people should live in freedom and govern themselves. That is our way of life, too. We wanted to be on the side of freedom-loving countries, so we became an ally of Great Britain and France. The United States sent troops to Europe to help win the war. Victory came to the Allies in November, 1918.

Efforts to keep the peace

During World War I, President Wilson had said that we were fighting a "war to end all wars." He had also told the United States Congress that nations should join together in an organization that would help to prevent wars. When the war was over, he was eager to help establish such an organization.

In 1919 he had the opportunity to further his idea at a Peace Conference held in Paris. There he secured the agreement of other statesmen that a world organization should be launched. The organization was called the League of Nations.

President Wilson returned home from Paris and urged that the United States join the League. He soon found that there were people who opposed this step. Those who did not want the United States to be in the League said that the organization would involve us in the quarrels of other countries. "If we engage in these disputes," these people argued, "we will find ourselves drawn into wars that do not concern us."

As a result, President Wilson could not persuade Congress to approve our nation's joining the League. When the League held its first meeting in 1920, the United States did not send representatives to take part. We did not become a member of the League.

During the years that followed, however, the United States tried to promote world peace. It joined a group of nations in promising to limit the size of navies. It also was one of sixty-two nations that signed a treaty saying they would not go to war.

Ewing Galloway

Nations may bring their disputes to or seek legal advice from the World Court. Here the judges, dressed in their black robes and white bibs, listen to a representative from one such nation.

The League of Nations, the plan to limit navies, and the agreement not to wage war all failed to prevent World War II. Germany, Italy, and Japan seized territory and grew in armed strength until the only way to stop them was by fighting World War II.

Our part in World War II

In World War II, the United States again tried to be neutral, but the war took a turn which greatly concerned many of our people. Germany swiftly crushed first Poland and then France.

Great Britain was forced to withdraw its troops from the continent of Europe, leaving a great region to be occupied by Germany and Italy. From bases in Europe, Germany sent fleets of airplanes to drop bombs on the cities and industries of Great Britain. The British were in serious danger of being defeated. In the Far East, Japan widened its control over China and was moving to conquer still more of Asia.

These developments caused the United States to think again about whether to remain neutral. The dictators of Germany, Italy, and Japan vowed to destroy the democratic way of life. They carried out this threat in the lands that they had conquered. Now they were in a position to gain control of all Europe, Africa, and Asia. If they succeeded in doing this, the conquerors would next turn their armed forces against us. We would then have to fight them alone because our friends in the Old World would have been destroyed.

The United States decided not to wait until this happened. We resolved to help the nations who were fighting Germany, Italy, and Japan. We began to send them food, raw materials, and weapons. In December, 1941, we entered World War II ourselves when Japan attacked Hawaii, Guam, and the Philippine Islands.

The United States and its allies agreed to help each other in every way they could.

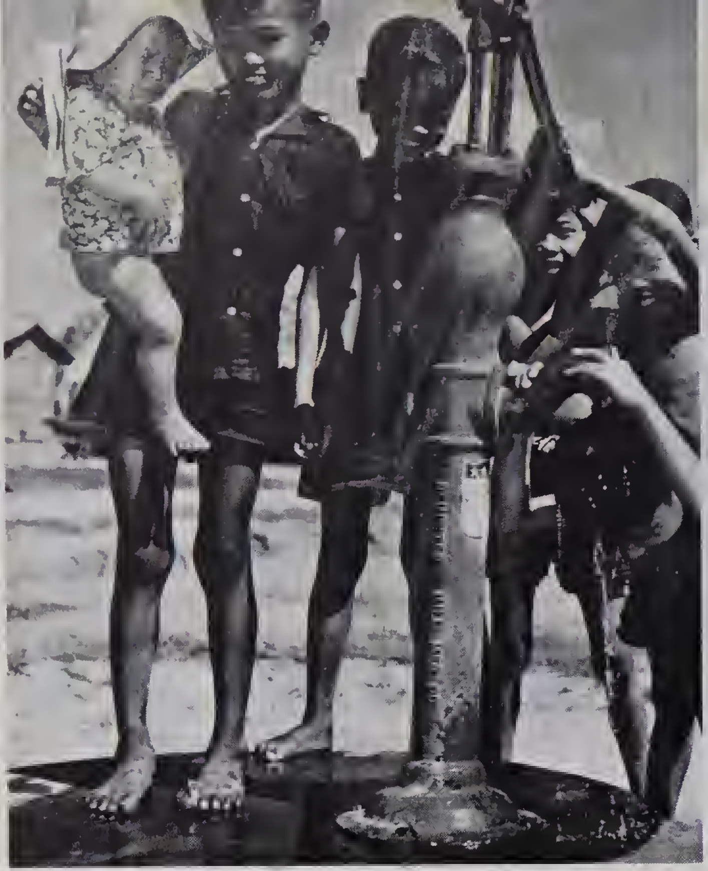


Photo Courtesy ICA

The United States has helped to dig many wells in Southeast Asia. Children, like those shown here, now have safe drinking water.

Our country did its full share. Besides fighting the enemy, we sent supplies to our military partners. We gave or loaned them ships, airplanes, and guns. We furnished them food, clothing, and medicine. They sent many men into battle and provided valuable bases for our troops, airplanes, and ships. The teamwork paid off. By 1945 Italy, Germany, and Japan had been defeated.

Organization and alliances

As World War II drew to a close, a new organization for keeping peace was established. It was called the United Nations. As you know, the United States helped to start the United Nations and became one of its first members. We have given the United Nations strong support in the hope that it can prevent another world war.

The United States has demonstrated its leadership in many other ways. It has helped other free lands to strengthen their defenses by making alliances with them. We have promised to go to their aid if they are attacked. They have promised to help us, too.

The most important of these alliances, as you know, is the North Atlantic Treaty Organization (NATO). The United States was the leader in establishing it and has done much to help the countries that belong to it.

The United States, Canada, and thirteen free nations of Europe belong to NATO. They may be called upon to resist any foe, but they have been concerned most of all about the attempts of the Soviet Union to spread the Communist way of life outside its borders. By joining NATO and similar groups, the United States has taken a stand against loss of more territory to the Communists. Our goal is to help keep as much of the world free as we can.

Aid to other nations

To demonstrate our belief in the right of nations to be free, we gave independence to the Philippine Islands. They became a United States possession after we defeated Spain in the Spanish-American War (1898). We then promised to give the people of the Philippines their freedom and helped them to prepare for the time when they would govern themselves. On July 4, 1946, the United States proudly watched the Republic of the Philippines join the free nations.

Besides upholding the principles of freedom, we want our neighbors to improve their standards of living. Since World War II, we have given many billions of dollars' worth of help to nations in need. We sent food and clothing to millions of people who lost their possessions in the war. We helped countries in Europe and Asia to repair factories, railroads, harbors, farms, highways, and ships.

The United States has also sent aid to nations that are struggling to overcome poverty, ignorance, and disease. We have done these things in an effort to help more and more people enjoy a better life.

Looking back—and ahead

From the very beginning of its history, the United States has set an example to all people who prized freedom. Our story has inspired the people of many lands to seek the right to govern themselves. Some have formed governments that are patterned on ours.

Today the United States is the strongest of all free nations. We are using our power to protect freedom in many parts of the world. We are doing this for the same reason that President Monroe told outsiders to keep hands off the Western Hemisphere. He believed that an attack on our neighbors would endanger us. Today the United States feels that an attack on a free nation anywhere would be a threat to our own safety.

Experience has also taught us that small wars can grow into large conflicts and that it is difficult for a nation to remain neutral in time of war. We learned this lesson early in our history. We learned it again in World Wars I and II. That is why we are working more closely than ever before with other nations. The United States wants to do its part in building a more peaceful world.

TO HELP YOU LEARN

Finding the Facts

1. Why did France hesitate to make a treaty with the United States in 1776?
2. For what principle did the United States fight in the War of 1812? What lesson did Europe learn from this war?
3. What warning did President James Monroe issue to European nations in 1823? What effect did the warning have?
4. Why did the United States try to stay out of World War I? What right were we seeking to defend when we entered the war?
5. What step did President Woodrow Wilson urge the United States to take after World War I? What was the outcome?
6. Why did the United States enter World War II?
7. Discuss two ideals that nations share.
8. Name two world organizations that have been formed to help keep the peace.
9. Discuss the ways in which the United States has shown leadership among nations since World War II.

Can You Put These Events in Order?

Rearrange the events listed below in the order in which they occurred.

1. The Monroe Doctrine was proclaimed.
2. The United States entered World War I.
3. United States Constitution was written.
4. The United Nations was organized.
5. The War Between the States broke out.
6. Franklin concluded a treaty with France.
7. The Panama Canal was opened.
8. The United States entered World War II.
9. The League of Nations was established.

Things to Think About

1. If Benjamin Franklin were alive today, what special position in the State Department, which handles United States affairs with other countries, would he be specially qualified to hold?
2. Do you think the United States might profit more fully than it has from its experiences in past wars? Be specific.

REFERENCE TABLES

THE STATES OF THE UNITED STATES

UNITED STATES OF AMERICA: *Area (including water)*, 3,615,226 Sq. M. *Population* (1960), 179,323,175
Washington, D.C., *Capital: Area*, 69 *Sq. M.* *Population* (1960), 763,956

State	Capital	Largest City	Total Area	Population (1960)	Principal Resources and Products
Alabama	Montgomery	Birmingham	51,609	3,266,740	Cotton, grains, livestock, metals
Alaska	Juneau	Anchorage	586,400	226,167	Fish, minerals, forests, furs
Arizona	Phoenix	Phoenix	113,909	1,302,161	Copper, minerals, livestock, fruit
Arkansas	Little Rock	Little Rock	53,104	1,786,272	Cotton, gas, oil, bauxite, lumber
California	Sacramento	Los Angeles	158,693	15,717,204	Fruit, oil, machinery, movies
Colorado	Denver	Denver	104,247	1,753,947	Coal, oil, livestock, grains
Connecticut	Hartford	Hartford	5,009	2,535,234	Aircraft engines, poultry, machinery
Delaware	Dover	Wilmington	2,057	446,292	Fish, chemicals, shipbuilding
Florida	Tallahassee	Miami	58,560	4,951,560	Tourism, fruit, cattle, missiles
Georgia	Atlanta	Atlanta	58,876	3,943,116	Cotton, minerals, cattle, lumber
Hawaii	Honolulu	Honolulu	6.439	632,772	Sugar, pineapples, tourism, livestock
Idaho	Boise	Boise	83,557	667,191	Lumber, minerals, wool, grains
Illinois	Springfield	Chicago	56,400	10,081,158	Machinery, coal, corn, livestock
Indiana	Indianapolis	Indianapolis	36,291	4,662,498	Steel, coal, livestock, grains
Iowa	Des Moines	Des Moines	56,290	2,757,537	Corn, hogs, cattle, oats, poultry
Kansas	Topeka	Wichita	82,276	2,178,611	Wheat, aircraft, oil, cattle
Kentucky	Frankfort	Louisville	40,395	3,038,156	Coal, oil, tobacco, livestock
Louisiana	Baton Rouge	New Orleans	48,523	3,257,022	Oil, gas, fish, sugar, furs, lumber
Maine	Augusta	Portland	33,215	969,265	Wood, paper, berries, fish, potatoes
Maryland	Annapolis	Baltimore	10,577	3,100,689	Fish, metals, dairy products, shipbuilding
Massachusetts	Boston	Boston	8,257	5,148,578	Shoes, fish, instruments, machinery
Michigan	Lansing	Detroit	58,216	7,823,194	Autos, minerals, machinery, fruit
Minnesota	St. Paul	Minneapolis	84,068	3,413,864	Machinery, iron, dairy products, wheat
Mississippi	Jackson	Jackson	47,716	2,178,141	Cotton, wood products, livestock, oil
Missouri	Jefferson City	St. Louis	69,674	4,319,813	Corn, minerals, equipment, livestock
Montana	Helena	Great Falls	147,138	674,767	Wheat, cattle, copper, oil, timber
Nebraska	Lincoln	Omaha	77,227	1,411,330	Wheat, corn, livestock, gas, oil
Nevada	Carson City	Las Vegas	110,540	285,278	Copper, livestock, poultry, minerals
New Hampshire	Concord	Manchester	9,304	606,921	Berries, poultry, textiles, lumber
New Jersey	Trenton	Newark	7,836	6,066,782	Chemicals, truck crops, machinery
New Mexico	Santa Fe	Albuquerque	121,666	951,023	Lumber, livestock, oil, gas, minerals
New York	Albany	New York	49,576	16,782,304	Clothing, printing, machinery, milk
North Carolina	Raleigh	Charlotte	52,712	4,556,155	Minerals, textiles, cigarettes, paper
North Dakota	Bismarck	Fargo	70,665	632,446	Wheat, livestock, coal, oil, flax
Ohio	Columbus	Cleveland	41,222	9,706,397	Machinery, corn, livestock, metals
Oklahoma	Oklahoma City	Oklahoma City	69,919	2,328,284	Oil, gas, wheat, livestock, airplanes
Oregon	Salem	Portland	96,981	1,768,687	Fish, fruit, cattle, lumber, wheat
Pennsylvania	Harrisburg	Philadelphia	45,333	11,319,366	Coal, steel, textiles, tobacco
Rhode Island	Providence	Providence	1,214	859,488	Textiles, jewelry, dairy products
South Carolina	Columbia	Columbia	31,055	2,382,594	Tobacco, cotton, textiles, paper
South Dakota	Pierre	Sioux Falls	77,047	680,514	Gold, wheat, corn, livestock
Tennessee	Nashville	Memphis	42,244	3,567,089	Lumber, chemicals, livestock, cotton
Texas	Austin	Houston	267,339	9,579,677	Cattle, cotton, oil, gas, chemicals
Utah	Salt Lake City	Salt Lake City	84,916	890,627	Livestock, wheat, oil, uranium, steel
Vermont	Montpelier	Burlington	9,609	389,881	Marble, dairy products, machinery, lumber
Virginia	Richmond	Norfolk	40,815	3,966,949	Tobacco, coal, chemicals, ships
Washington	Olympia	Seattle	68,192	2,853,214	Wood products, aircraft, wheat, fruit
West Virginia	Charleston	Charleston	24,181	1,860,421	Coal, lumber, livestock, chemicals
Wisconsin	Madison	Milwaukee	56,154	3,951,777	Dairy products, hay, paper, iron
Wyoming	Cheyenne	Cheyenne	97,014	330,066	Coal, oil, livestock, farm crops

TERRITORIES AND DEPENDENCIES OF THE UNITED STATES*

Name	Total Area	Population (1960)	Date Acquired	Name	Total Area	Population (1960)	Date Acquired
American Samoa	76	20,000	1900	**Howland, Jarvis, Baker Is.**	4	(uninhabited)	1935
Canal Zone	553	42,000	1904	**Midway, Wake Is.**	5	400 (est.)	1898
Canton, Enderbury Is.	7	300 (est.)	1939	**Puerto Rico**	3,435	2,353,000	1898
Guam	206	67,000	1898	**Virgin Is.**	133	32,000	1917

THE PROVINCES OF CANADA*

CANADA: *Total Area,* 3,560,238 *Sq. M.* *Population* (1960), 17,930,000; *Capital:* **Ottawa**
Population (1960), 418000

Province	Capital	Total Area	Population	Principal Resources and Products
Alberta	Edmonton	248,800	1,298,000	Wheat, cattle, hogs, fish, lumber, oil, gas
British Columbia	Victoria	359,279	1,618,000	Lumber, fish, minerals, fruit, tobacco
Manitoba	Winnipeg	211,775	902,000	Wheat, fish, cattle, minerals, furs, lumber
New Brunswick	Fredericton	27,835	603,000	Potatoes, lumber, dairy products, farm crops
Newfoundland	St. John's	143,045	462,000	Fish, iron, lumber, dairy products, farm crops
Nova Scotia	Halifax	20,402	726,000	Apples, lumber, iron, steel, fish, coal, cattle
Ontario	Toronto	344,092	6,130,000	Iron, manufactures, dairy products, minerals
Prince Edward Is.	Charlottetown	2,184	104,000	Potatoes, fish, furs, tourism, farm crops
Quebec	Quebec	523,860	5,140,000	Iron, farming, forestry, manufactures, cattle
Saskatchewan	Regina	220,182	913,000	Wheat, oil, cattle, uranium, furs, lumber
Yukon Territory	White Horse	205,346	14,000	Gold, silver, furs, lumber, tungsten
Northwest Territories		1,253,438	22,000	Lead, zinc, gold, nickel, uranium, furs, fish

LATIN-AMERICAN REPUBLICS*

Country	Capital	Total Area	Population	Principal Resources and Products
Argentina	Buenos Aires	1,073,700	20,956,000	Livestock, wheat, steel, silver, copper, cotton, meat
Bolivia	La Paz; Sucre	416,040	3,462,000	Tin, rubber, silver, copper, cinchona, cacao, coffee
Brazil	Brasília	3,288,045	65,743,000	Coffee, cotton, cattle, steel, manganese, sugar, iron
Chile	Santiago	286,396	7,627,000	Nitrates, iodine, copper, coal, cattle, wheat, wool
Colombia	Bogotá	439,553	14,132,000	Coffee, oil, cotton, tobacco, cacao, chemicals, textiles
Costa Rica	San José	19,695	1,171,000	Coffee, bananas, cacao, cattle, lumber, gold, silver
Cuba	Havana	44,208	6,743,000	Sugar, tobacco, molasses, coffee, cabinet woods, rum
Dominican Republic	Santo Domingo	19,332	3,014,000	Livestock, sugar, bananas, cacao, coffee, lumber
Ecuador	Quito	104,506	4,298,000	Silver, oil, rice, bananas, cacao, cement, coffee
El Salvador	San Salvador	12,792	2,612,000	Coffee, henequen, cotton, sugar, gold, balsam, shoes
Guatemala	Guatemala City	50,647	3,759,000	Coffee, bananas, cotton, chicle, wood, cattle, sugar
Haiti	Port-au-Prince	10,700	3,505,000	Sugar, tourism, coffee, sisal, cotton, lumber, bananas
Honduras	Tegucigalpa	59,160	1,950,000	Bananas, coffee, timber, cotton, cattle, gold, silver
Jamaica	Kingston	4,411	1,607,000	Sugar, coffee, bananas, rum, bauxite, tourism
Mexico	Mexico City	758,450	34,626,000	Silver, oil, gas, fish, cattle, steel, sisal, coffee
Nicaragua	Managua	57,145	1,471,000	Bananas, cotton, coffee, gold, lumber, sugar, yucca
Panama	Panama City	29,127	1,053,000	Coffee, bananas, livestock, abacá, cacao, mahogany
Paraguay	Asunción	157,047	1,768,000	Iron, manganese, corn, lumber, livestock, yerba mate
Peru	Lima	482,258	10,857,000	Cotton, wool, iron, copper, vanadium, corn, livestock
Trinidad	Port of Spain	1,864	826,000	Petroleum and asphalt products, sugar, rum, cacao
Uruguay	Montevideo	72,173	2,700,000	Cattle, wool, corn, wheat, textiles, wine, fruit
Venezuela	Caracas	352,150	6,709,000	Oil, iron, coffee, cacao, cattle, rubber, chemicals

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* Area and population in the tables on pages 515–520 are based on U.N. sources (latest census or official estimate).

EUROPEAN POSSESSIONS IN THE ATLANTIC AND CARIBBEAN

Possession	Capital	Total Area	Population	Principal Resources and Products
Bahamas (Br.)	Nassau	4,404	103,000	Tomatoes, lumber, fruit, salt, tourism
Bermuda (Br.)	Hamilton	21	44,000	Tourism, bulbs, potatoes, bananas, onions
British Guiana	Georgetown	83,000	559,000	Sugar, bauxite, lumber, rice, gold, copra
British Honduras	Belize	8,867	90,000	Mahogany, tropical fruit, chicle, cedar, cacao
French Guiana	Cayenne	34,750	31,000	Lumber, rice, corn, gold, cacao, bananas
Greenland (Dan.)	Godthaab	827,300	30,000	Cryolite, fish, furs, graphite
Guadeloupe (Fr.)	Basse-Terre	583	264,000	Sugar, coffee, rum, cacao, bananas
Martinique (Fr.)	Fort-de-France	380	271,000	Sugar, bananas, rum, pineapples, cacao
Netherlands Antilles	Willemstad	381	195,000	Corn, pulse, salt, phosphates, oil refining
St. Pierre, Miquelon (Fr.)	St. Pierre	93	5,000	Cod, fish products
Surinam (Neth.)	Paramaribo	55,400	293,000	Bauxite, lumber, rice, coffee

THE COUNTRIES OF EUROPE

Country	Capital	Total Area	Population	Principal Resources and Products
Albania	Tirana	11,100	1,556,000	Tobacco, lumber, wool, furs, dairy products, fish, olive oil
Andorra	Andorra	175	7,000	Sheep, tourism, lumber, iron, lead, stone
Austria	Vienna	32,374	7,049,000	Coal, oil, iron, lumber, steel, fabrics, chemicals, tourism
Belgium	Brussels	11,779	9,104,000	Coal, iron, oats, rye, steel, glass, diamond cutting, textiles
Bulgaria	Sofia	42,729	7,798,000	Wheat, rye, fruit, tobacco, machinery, coal, textiles
Czechoslovakia	Prague	49,366	13,649,000	Grains, sugar beets, coal, iron, steel, uranium, glass
Denmark	Copenhagen	16,618	4,547,000	Butter, bacon, fish, dairy products, tourism
Finland	Helsinki	130,119	4,456,000	Oats, barley, rye, textiles, wood products, metals
France	Paris	212,822	45,540,000	Wheat, rye, cattle, fruit, fish, wine, coal, oil, steel, perfume, autos, textiles, chemicals, bauxite
Germany, East	East Berlin	41,479	16,213,000	Coal, potash, wheat, rye, potatoes, sugar beets, fruits
Germany, West	Bonn	95,738	53,373,000	Steel, coal, oil, iron, ships, chemicals, textiles, machinery
Greece	Athens	51,182	8,258,000	Wheat, rye, olives, fruit, tobacco, iron, copper, livestock
Hungary	Budapest	35,919	10,002,000	Wheat, rye, wine, flax, bauxite, coal, steel, machinery
Iceland	Reykjavik	39,800	172,000	Potatoes, fish, cement, turnips, hay
Ireland	Dublin	27,136	2,834,000	Wheat, oats, potatoes, flax, clothing, metals, tourism
Italy	Rome	116,304	49,368,000	Wheat, corn, rice, livestock, grapes, olives, wine, fruit, gas, oil, marble, steel, autos, machinery
Liechtenstein	Vaduz	61	16,000	Cattle, machinery, textiles, leather goods, stamps
Luxembourg	Luxembourg	998	324,000	Oats, barley, wheat, iron, steel, potatoes
Monaco	Monaco	.57	23,000	Tourism
Netherlands	Amsterdam	12,529	11,480,000	Cereals, potatoes, fish, dairy products, bulbs, ships
Norway	Oslo	125,064	3,587,000	Hay, oats, wood products, fish, silver, copper, textiles
Poland	Warsaw	120,359	29,731,000	Rye, wheat, barley, flax, textiles, chemicals, machinery
Portugal	Lisbon	35,600	9,125,000	Wheat, maize, wine, olives, cork, coal, lead, fish
Rumania	Bucharest	91,700	18,256,000	Livestock, fruit, salt, oil, gas, machinery, wheat, corn, barley, flour, chemicals
San Marino	San Marino	24	15,000	Wine, olive oil, cheese, cattle, building stone, woolens
Spain	Madrid	194,396	30,128,000	Wheat, barley, olives, fruit, wines, fish, coal, iron
Sweden	Stockholm	173,622	7,480,000	Dairy products, iron, steel, wood products, autos, ships
Switzerland	Bern	15,941	5,411,000	Salt, watches, machinery, instruments, textiles, rye, cattle
United Kingdom	London	94,214	52,157,000	Wheat, barley, truck crops, coal, iron, slate, tourism, ships, steel, autos, machinery, textiles
Malta	Valetta	122	328,000	Fruit, lace, jewelry, fish, wheat, barley
Gibraltar	Gibraltar	2.31	26,000	Armed forces base
Vatican City		.17	1,000	Headquarters of Roman Catholic Church
Yugoslavia	Belgrade	98,766	18,655,000	Maize, wheat, barley, fruit, coal, iron, lead, steel

COUNTRY	CAPITAL	TOTAL AREA	POPULATION	PRINCIPAL RESOURCES AND PRODUCTS
UNION OF SOVIET SOCIALIST REPUBLICS	Moscow	8,649,800	214,400,000	Coal, iron, salt, oil, manganese, timber, gold, textiles, wheat, barley, sugar beets, cotton, livestock, tobacco, gas, steel, machinery, autos, ships, metals, oil seeds, flax

THE COUNTRIES OF ASIA

COUNTRY	CAPITAL	TOTAL AREA	POPULATION	PRINCIPAL RESOURCES AND PRODUCTS
Aden (Br.)	Aden	112,000	800,000	Salt, fish, soap, tobacco, cotton, livestock
Afghanistan	Kabul	251,000	13,150,000	Sheep, fruit, cotton, wool, copper, lead, zinc, oil
Bhutan	Punakha	19,000	700,000	Rice, millet, lac, wax, cloth, maize
Burma	Rangoon	261,757	20,662,000	Teakwood, rice, cotton, maize, tobacco, tin, silver, oil
Cambodia	Phnom Penh	66,606	4,845,000	Forests, fish, rice, cattle, rubber, maize, tobacco, iron
Ceylon	Colombo	25,332	9,612,000	Tea, rubber, coconuts, rice, paper, glassware, graphite
China	Peking	3,768,733	669,000,000	Wheat, barley, corn, millet, rice, livestock, fruits, cotton
Cyprus	Nicosia	3,572	563,000	Fruit, olives, cotton, flour, textiles, iron, wheat, barley
Formosa	Taipei	13,884	10,611,000	Sugar, tea, chemicals, potatoes, gold, rice, silver, copper
Hong Kong (Br.)	Victoria	391	2,981,000	Trading center, tourism, ships, textiles, iron, steel, fish
India	New Delhi	1,259,990	408,050,000	Rice, corn, millet, wheat, textiles, steel, oil, cotton, jute
Indonesia	Jakarta	575,893	92,600,000	Tin, oil, coal, bauxite, copper, nickel, rice, maize
Iran	Tehran	636,300	20,633,000	Oil, iron, coal, copper, wheat, barley, forests, corn
Iraq	Baghdad	171,599	6,952,000	Wheat, barley, rice, millet, cotton, oil, dates, tobacco
Israel	Jerusalem	7,990	2,114,000	Fruit, wheat, barley, olives, wine, textiles, tourism
Japan	Tokyo	142,726	93,419,000	Rice, wheat, barley, potatoes, fish, tea, textiles, ships
Jordan	Amman	37,301	1,636,000	Phosphates, oil, tobacco, flour, textiles, olive oil
Korea, North	Pyongyang	47,862	9,418,000	Forests, gold, silver, zinc, rice, barley, wheat, textiles
Korea, South	Seoul	37,424	24,502,000	Rice, tungsten, textiles, steel, ships, barley, wheat
Kuwait	Kuwait	6,000	219,000	Oil
Laos	Vientiane	91,429	1,760,000	Rice, maize, tobacco, fruit, coffee, teakwood, tin, shellac
Lebanon	Beirut	4,020	1,550,000	Fruit, tobacco, olive oil, silk, cotton
Malaya, Federation of	Kuala Lumpur	50,700	6,698,000	Tin, rubber, copra, rice, coconuts, oil palms, sugar, camphor
Mongolia	Ulan Bator	591,000	1,000,000	Livestock, wool, shoes, tanning, gold, coal, tungsten
Muscat and Oman	Muscat	82,000	550,000	Dates, fruit, fish, pearls
Nepal	Katmandu	54,362	9,180,000	Jute, wheat, rice, grain, cattle, hides, drugs, forests
Pakistan	Rawalpindi	364,797	86,823,000	Rice, wheat, jute, cotton, tea, textiles, flour, wool
Philippines	Quezon City	115,707	27,456,000	Livestock, rice, sugar, lumber, fish, fruit, iron, coconuts
Saudi Arabia	Riyadh and Mecca	617,760	6,500,000	Oil, gold, silver, dates, wheat, barley, iron, fruit, sheep
Syria	Damascus	71,227	4,539,000	Oil, cotton, wheat, cattle, flour, textiles, olives
Thailand (Siam)	Bangkok	198,400	25,520,000	Teakwood, coal, tin, iron, cotton, rice, rubber, coconuts
Turkey	Ankara	301,381	27,829,000	Tobacco, cereals, cotton, olive oil, fruit, textiles, oil, copper, mohair
Vietnam, North	Hanoi	59,934	14,300,000	Rice, coal, coffee, tea, maize, tobacco, sugar, shellac
Vietnam, South	Saigon	65,948	13,790,000	Rice, rubber, coal, fish, lumber, cattle, zinc, tea, coffee, tin, hides
Yemen	San'a and Ta'iz	75,000	5,000,000	Coffee, barley, grain, hides, dates, charcoal, precious stones

THE COUNTRIES OF AFRICA

Country	Capital	Total Area	Population	Principal Resources and Products
Algeria	Algiers	919,592	10,930,000	Cereals, flax, tobacco, iron, lead, wine, olive oil, livestock
Angola (Port.)	Luanda	481,352	4,550,000	Coffee, diamonds, corn, cotton, sisal, fish, sugar, paper, iron
Basutoland (Br.)	Maseru	11,716	685,000	Cereals, wool, mohair, wheat, hides, livestock
Bechuanaland (Br.)	Mafeking	275,000	337,000	Cattle, dairy products, hides, gold
Cameroun	Yaoundé	167,000	3,225,000	Cacao, lumber, coffee, rubber, cotton, bananas, livestock, palm oil
Central African Republic	Bangui	238,000	1,185,000	Cotton, coffee, peanuts, lumber, diamonds, gold
Chad	Fort-Lamy	495,800	2,600,000	Cotton, livestock
Congo Republic	Brazzaville	132,000	795,000	Wood products, palm oil and kernels, peanuts
Congo, Republic of the	Leopoldville	905,380	13,821,000	Copper, cobalt, gold, tungsten, silver, lumber, cotton, iron
Dahomey	Porto Novo	44,696	1,725,000	Cotton, coffee, maize, palm oil, groundnuts, manioc
Egypt	Cairo	390,000	25,365,000	Cotton, rice, textiles, fruit, cereals, sugar, cement, oil
Ethiopia	Addis Ababa	457,267	21,800,000	Wheat, barley, millet, livestock, tin, silver, sugar, tobacco
Federation of Rhodesia and Nyasaland (Br.)	Salisbury	483,829	8,330,000	Copper, cotton, gold, zinc, lead, asbestos, tea, livestock, textiles, wood, tobacco
French Somaliland	Jibuti	8,500	70,000	Fish, livestock, salt
Gabon	Libreville	103,000	420,000	Wood products, oil, manganese, iron, uranium, cacao, coffee, rice
Gambia (Br.)	Bathurst	4,003	301,000	Beeswax, hides, groundnuts, ilmenite
Ghana	Accra	91,843	6,691,000	Manganese, cacao, gold, lumber, diamonds, rubber, bauxite
Guinea	Conakry	94,926	3,000,000	Bauxite, diamonds, gold, iron, corn, rice, bananas, coffee
Ivory Coast	Abidjan	124,503	3,200,000	Groundnuts, maize, rice, coffee, millet, cacao, cotton, bananas
Kenya (Br.)	Nairobi	224,960	6,551,000	Coffee, tea, lumber, dairy products, cereals, sisal, hides
Liberia	Monrovia	43,000	1,250,000	Rubber, rice, coffee, cacao, sugar, iron, gold, diamonds
Libya	Bengasi and Tripoli	679,359	1,172,000	Grapes, dates, tobacco, carpets, fruit, leather goods, olives
Malagasy Republic	Tananarive	228,000	5,287,000	Rice, manioc, nickel, cloves, livestock, corn, coffee, hardwoods
Mali Republic	Bamako	464,873	4,300,000	Peanuts, livestock
Mauritania	Nouakchott	419,230	730,000	Cattle, gum, salt, fish, iron ore, copper, livestock, millet
Morocco	Rabat	171,305	11,598,000	Hides, wool, cereals, grapes, carpets, coal, wheat, fruit
Mozambique (Port.)	Lourenço Marques	302,328	6,310,000	Cement, flour, sugar, coal, gold, silver, coconuts, cotton
Niger	Niamey	458,994	2,850,000	Peanuts, cotton, livestock
Nigeria	Lagos	339,169	34,296,000	Tin, lead, fish, oil, cacao, hides, flour, sugar, asbestos
Portuguese Guinea	Bissau	13,948	565,000	Wax, oils, ivory, hides
Republic of South Africa	Cape Town and Pretoria	472,359	15,841,000	Corn, cotton, wool, sheep, tobacco, wheat, coal, sugar, fruit, gold, diamonds, uranium, copper, tin, iron
South-West Africa	Windhoek	318,099	525,000	Sheep, cattle, butter, cheese, diamonds, lead, zinc, vanadium
Ruanda-Urundi (Belg.)	Usumbura	20,916	4,780,000	Coffee, livestock, hides

THE COUNTRIES OF AFRICA (Continued)

COUNTRY	CAPITAL	TOTAL AREA	POPULATION	PRINCIPAL RESOURCES AND PRODUCTS
Senegal	Dakar	76,124	2,300,000	Livestock, groundnuts, phosphates, millet, maize, rice
Sierra Leone	Freetown	27,925	2,400,000	Rice, cacao, coffee, palm oil, livestock, iron ore, diamonds
Somali Republic	Mogadishu	246,201	1,990,000	Livestock, sugar, bananas, hides, maize, gum
Spanish Guinea	Santa Isabel	10,830	218,000	Cacao, gold, coffee, wood products, wool
Spanish Sahara	Villa Cisneros	102,700	25,000	Livestock, fish
Sudan	Khartoum	967,500	11,615,000	Cotton, ivory, sesame, hides, nuts, copper, iron, millet
Swaziland (Br.)	Mbabane	6,704	259,000	Cotton, tobacco, corn, livestock, tin, butter, asbestos
Tanganyika	Dar es Salaam	361,800	9,238,000	Sisal, cotton, coffee, hides, ivory, diamonds, lead, gold
Togo	Lomé	22,000	1,442,000	Cacao, copra, coffee, groundnuts
Tunisia	Tunis	48,332	3,935,000	Wheat, oats, olives, grapes, barley, lead, iron, corn, wine
Uganda	Entebbe	93,980	6,682,000	Copper, coffee, cotton, tea, tin, cobalt, maize, sisal, sugar
Upper Volta	Ouagadougou	105,839	3,537,000	Cotton, rice, peanuts, karite, livestock
Zanzibar and Pemba (Br.)	Zanzibar	10,204	307,000	Cloves, coconuts, pottery, rope, soap, jewelry, mats

AUSTRALIA AND THE PACIFIC ISLANDS

COUNTRY	CAPITAL	TOTAL AREA	POPULATION	PRINCIPAL RESOURCES AND PRODUCTS
Australia	Canberra	2,974,581	10,281,000	Iron ore, wool, wheat, sugar, wine, fruit, grains, gold, uranium, copper, tin, silver, steel, textiles, machinery
Fiji Islands	Suva	7,055	381,000	Sugar, coconuts, gold, tobacco, cabinet woods
New Caledonia	Nouméa	7,300	70,000	Nickel, chrome, cobalt, manganese, lead, copper, copra, cotton, coffee, manioc, bananas, corn
New Hebrides (Br. and Fr.)	Vila	5,700	58,000	Copra, cotton, cacao, coffee
New Zealand	Wellington	103,736	2,372,000	Sheep, wool, dairy products, wheat, oats, barley, coal, gold
Solomon Islands (Br.)	Honiara	11,500	115,000	Copra, timber, nuts, trochus shell
Tahiti (Fr.)	Papeete	400	45,000	Coconuts, bananas, oranges, sugar, rum, copra, vanilla
Territory of New Guinea (Aus.)	Port Moresby	93,000	1,376,000	Copra, cacao, rubber
Timor (Port.)	Dilly	5,762	496,000	Coffee, sandalwood, sandal root, copra, wax
Tonga Islands (Br.)	Nukualofa	269	62,000	Fish, coconuts, bananas, breadfruit, taro, sweet potatoes
Western Samoa	Apia	1,133	104,000	Copra, bananas, cacao

CITIES OF THE WORLD WITH A POPULATION OF 1,000,000 AND MORE

City	Population	City	Population
1. Tokyo, Japan	8,302,565	39. Vienna, Austria	1,656,292
2. New York, New York, U.S.A.	7,781,984	40. Seoul, South Korea	1,646,000
3. Shanghai, China	6,900,000	41. Harbin, Manchuria	1,552,000
4. Moscow, U.S.S.R.	5,032,000	42. Lü-ta (Port Arthur and Darien), China	1,508,000
5. Bombay, India	4,941,000	43. Barcelona, Spain	1,503,062
6. Peking (Peiping), China	4,010,000	44. Nagoya, Japan	1,502,000
7. Buenos Aires, Argentina	3,767,887	45. Istanbul, Turkey	1,459,528
8. São Paulo, Brazil	3,674,373	46. Milan, Italy	1,450,359
9. Chicago, Illinois, U.S.A.	3,550,404	47. Nanking, China	1,419,000
10. London, England	3,225,000	48. Saigon, South Vietnam	1,383,000
11. Tientsin, China	3,220,000	49. Alexandria, Egypt	1,335,000
12. Rio de Janeiro, Brazil	3,123,984	50. Bangkok, Thailand	1,330,153
13. Calcutta, India	3,040,000	51. Sian (Hsi-an), China	1,310,000
14. Leningrad, U.S.S.R.	2,888,000	52. Yokohama, Japan	1,302,000
15. Osaka, Japan	2,887,000	53. Bangalore, India	1,269,000
16. Cairo, Egypt	2,852,000	54. Lima, Peru	1,262,107
17. Paris, France	2,850,189	55. Kyoto, Japan	1,254,000
18. Jakarta, Indonesia	2,814,210	56. Bucharest, Rumania	1,227,111
19. Mexico City, Mexico	2,697,994	57. Surabaja, Indonesia	1,146,641
20. Los Angeles, California, U.S.A.	2,479,015	58. Manila, the Philippines	1,145,723
21. Shenyang (Mukden), China	2,411,000	59. Naples, Italy	1,140,790
22. West Berlin, Germany	2,211,349	60. Caracas, Venezuela	1,136,000
23. Madras, India	2,208,000	61. Warsaw, Poland	1,136,000
24. Wuhan, China	2,146,000	62. Bogotá, Colombia	1,123,600
25. Chungking, China	2,121,000	63. Tsingtao, China	1,121,000
26. Sydney, Australia	2,054,800	64. Montreal, Canada	1,109,439
27. Philadelphia, Pennsylvania, U.S.A.	2,002,512	65. Chengtu, China	1,107,000
28. Madrid, Spain	1,966,070	66. Kiev, U.S.S.R.	1,104,000
29. Rome, Italy	1,947,360	67. Pusan, South Korea	1,097,000
30. Karachi, Pakistan	1,916,000	68. Johannesburg, South Africa	1,096,541
31. Canton, China	1,840,000	69. Birmingham, England	1,091,500
32. Tehran, Iran	1,838,982	70. Kobe, Japan	1,086,000
33. Hamburg, Germany	1,815,399	71. East Berlin, Germany	1,085,000
34. Budapest, Hungary	1,807,299	72. Hyderabad, India	1,050,000
35. Melbourne, Australia	1,777,700	73. Munich, Germany	1,047,668
36. Santiago, Chile	1,699,711	74. Ahmedabad, India	1,040.000
37. Delhi, India	1,672,000	75. Taiyuan, China	1,020,000
38. Detroit, Michigan, U.S.A.	1,670,144	76. Victoria, Hong Kong, China	1,000,000

WORD LIST

a as in hat
ā as in māke
â as in shâre
ä as in cär
e as in let
ē as in wē
ẽ as in o′vẽr
i as in tin
ī as in kīte
o âs in top
ō as in nō
ô as in côrd
oo as in cook
o͞o as in to͞o
oi as in soil
ou as in loud
u as in dust
ū as in hūge
ũ as in fũr
n as in bo*n*
th as in path
th as in *th*ey
zh as in lei′sure
ə = a as in a go′
ə = e as in a′gent
ə = i as in fam′i ly
ə = o as in king′dom
ə = u as in faith′ful

abacá (ä′bə-kä′): a plant from which rope is made
abdicate (ab′də-kāt′): to give up a throne
aborigines (ab′ə-rij′ə-nēz′): the earliest-known inhabitants of a country
administration: management of a business or agency
Afrikaans (af′ri-känz′): a language based on Dutch, spoken in parts of the Republic of South Africa
alliance (ə-li′əns): partnership between two or more nations
alloy (al′oi): a substance, such as bronze, made by mixing two or more metals
alluvial (ə-lo͞o′vi-əl) **diamonds:** diamonds washed from the earth and deposited along river beds
ambassador (am-bas′ə-dẽr): an official sent by his government to represent it in another country
apartheid (ə-pärt′hīt): a system of separating the races of people in the Republic of South Africa
archaeologist (är′ki-ol′ə-jist): a scientist who explores caves and digs into ancient ruins to study human life in the past
archipelago (är′kə-pel′ə-gō′): a group of many islands lying close together.
artesian (är-tē′zhən) **well:** a well from which water flows naturally without having to be pumped
Aryans (âr′i-ənz): groups of light-skinned people who invaded India from the North and conquered the native peoples
asbestos (as-bes′təs): a mineral fiber which will not burn
atoll (at′ôl): a low coral island in the Pacific Ocean

balance of power: a distribution of power in which two groups of nations have ability sufficiently even to keep either from being dangerous
ballet (bal′ā): a dance that tells a story
bamboo: a canelike grass used to make many things
banyan (ban′yən) **tree:** a tree in India that has many roots which produce many trunks
bathyscaphe (bath′i-skāf′): a cigar-shaped submarine used for exploring great ocean depths
Bolshevists (bol′shə-vists): the party in Russia which waged the October 1917 revolution
Brahmans: priests of India
buffer state: a small nation placed between two larger states to prevent border disputes
caliph (kā′lif): title used by Mohammed's successors
capital: wealth in any form, used, or capable of being used, to produce other wealth
caste system: a system in India by which the people were divided into classes, or castes, to which they belonged by birth
Caucasians (kô-kā′zhənz): people with light skins, who belong to one of three large groups, or races, of man divided according to differences in their appearance
caviar (kav′i-är′): the eggs of sturgeon and some other large fish, salted and prepared for use as food
cede (sēd): to surrender, or give up, territory
civil service: a system by which government workers are appointed to jobs after passing examinations
cobalt (kō′bôlt): a metal which does not rust or tarnish and is heavier and stronger than iron
collective: a large farm owned and operated by the government of the Soviet Union
commerce: the carrying on of business or trade
Communists (kom′yoo-nists): a name adopted by the Bolshevists after they came to power in Russia
concession: a permit to use a piece of property
conquistador (kon-kwis′tə-dôr′): a Spanish conqueror
contour plowing: plowing around a hill instead of up and down, to slow the rate of water flowing down the hill
convoy (kon′ voi): a group of ships sailing together for protection from attack
co-operative (kō-op′ẽr-ā′tiv): a business owned and run by a group for the profit of all
coral: a kind of rock formed from the shells of tiny sea animals
correspondence school: a school that instructs students by sending lessons through the mail
cover crop: a crop, such as oats, which covers and protects the topsoil from heavy rains
cradle of civilization: a community in a river valley where early men developed civilized ways
Creole (krē′ōl): a person born in colonial America of Spanish parents
cryolite (krī′ə-līt′): a mineral used to refine aluminum
cultural center: a city whose people enjoy such advantages as museums, libraries, theaters, and concert halls

cultured pearl: a pearl formed as a result of inserting a bit of clam shell inside the shell of an oyster
cuneiform (kū-nē′ə-fôrm'): the wedge-shaped writing of the Sumerians and other ancient peoples

dialect (dī′ə-lekt'): a variation of a language spoken by the people of a small region of a country
direct democracy: a system of government in which all citizens meet together to vote for their laws
division of labor: a system of working in which each person performs the task that he does best
drought (drout) **resistant plants:** certain plants or crops which can endure dry weather
dynasty (dī′nəs-ti): a period during which rulers from the same family reign

ebony: a valuable black or very dark hardwood
ejido (ā-hē′*th*ō): a large government-owned farm in Mexico, operated by farmers whom the government supplies with seeds, fertilizer, and farm machinery
eucalyptus (ū'kə-lip′təs): a subtropical kind of evergreen tree native to Australia
expendable (ik-spen′də-b'l) **resource:** a resource that cannot be replaced after it is used up
extension class: a class held off the campus to serve the needs of students who live far from the college

fazenda (fə-zen′də): a coffee plantation in Brazil
federation (fed'ə-rā′shən): a union formed by two or more countries in which each keeps the management of its own local affairs
ferroalloy (fer'ō-ə-loi′): a metal that is mixed with iron to make a special kind of steel
Fertile Crescent: a curved belt of well-watered land extending from the Persian Gulf to the Mediterranean
fez: a tall hat formerly worn by Turkish men
fiesta (fi-es′tə): a festival in Latin America
fiord (fyôrd): a narrow inlet, or arm, of the sea bordered by steep cliffs, especially in Norway
free port: a port such as Singapore, where goods may move in and out without the payment of taxes
free trade: the exchange of products between countries without the payment of tariffs

Gaelic (gāl′ik): the language of ancient Ireland, now used in the Republic of Ireland
gaucho (gou′chō): a cowboy living in the pampas
gauge (gāj): the distance between rails of a railroad
generator (jen′ə-rā'tẽr): a machine that makes electricity, usually from water power or steam
geophysical (jē'ō-fiz′i-k'l): referring to the study of the earth and the forces that affect or change it
governor general: the representative appointed by the queen of England to act as her representative in nations belonging to the Commonwealth

hacienda (ä-syen′dä): a plantation in Spanish America
hieroglyphics (hī'ẽr-ə-glif′iks): earliest Egyptian writing composed of pictures and signs
Hindus (hin′do͞oz): India's largest religious group
humus (hū′məs): decayed vegetation in the topsoil

Industrial Revolution: a period of great change in manufacturing, beginning in the late 1700's in Great Britain when machines and power tools replaced hand tools in industry
intensive farming: using land so as to increase its productivity by tending it carefully
International Date Line: an imaginary line, approximately at the 180th meridian, fixed by international agreement as the place where each calendar day *first* begins
interpreter (in-tûr′pri-tẽr): a person who changes spoken or written words from one language into another
Islam (is′ləm): the Moslem religion; the word means "surrender to God"
ivory: a hard, white substance obtained from elephant tusks

jai-alai (hī'ə-lī′): a ball game played with rackets on a large court, popular in Latin America
jerboa (jẽr-bō′ə): a small animal in Australia which resembles a rat and jumps like the kangaroo

koala (kō-ä′lə) **bear:** a small Australian animal that looks like a toy stuffed bear
Koran (kō-rän′): the holy book of the Moslems which contains all of Mohammed's sayings and teachings

labor: people whose services are used in industry
lagoon (lə-go͞on′): a shallow lake, especially one that connects with a larger body of water
land-grant college: a college established with money raised from the sale of public land
legend (lej′ənd): a story handed down to us from the past which is often considered historical but which cannot often be proved
life expectancy: the number of years that the average new-born baby can be expected to live
literacy (lit′ẽr-ə-si): the ability to read and write
llanos (lä′nōs): extensive grassy plains of northern South America

maharajah (mä'hə-rä′jə): a title used by native rulers in India
mahogany (mə-hog′ə-ni): a valuable reddish-colored hardwood
malnutrition (mal'no͞o-trish′ən): a lack of proper nourishment
marsupials (mär-so͞o′pi-əlz): animals which carry their young in body pouches

matador (mat′ə-dôr′): a bullfighter in Spain

Mediterranean climate: the climate around the Mediterranean Sea where the rain falls during one season, mainly in the winter months

merchant marine: the commercial ships of a nation

mestizo (mes-tē′zō): a person whose ancestors were Spanish or Portuguese and Indian

metropolitan (met′rə-pol′ə-t'n) **area:** a region around a large city or cities where the suburbs touch or almost touch each other

migration (mī-grā′shən): the movement of a number of people from one region to another

minaret (min′ə-ret′): a tall, slender tower on a mosque

mohair (mō′hâr′): the hair of the Angora goat which is made into fine cloth

Mongolians (mon-gō′li-ənz): individuals with yellow or reddish-brown skins; one of the three large groups, or races, of man divided according to differences in appearance

monsoon (mon-sōōn′): a wind in the Far East that blows during certain months

Moslem (moz′ləm): a follower of Mohammed and the religion he founded

mosque (mosk): a Moslem place of worship

musterer: an Australian who works with sheep on ranches or stations

neutral: a person or a nation that does not take sides in a dispute or a war

newsprint: cheap paper used for newspapers, usually made from wood pulp

nitrogen (nī′trə-jən): a colorless, odorless gas making up about four fifths of the atmosphere

nomad: a person who has no permanent home, but wanders from place to place

nutrition (nōō-trish′ən): the process by which different foods nourish the body

oceanic climate: a temperate climate with warm summers and cool, rainy winters caused by winds which blow over a warm ocean current

opiate (ō′pi-it): a medicine used to deaden pain

paddock (pad′ək): a fenced field where an Australian farmer grazes his sheep

pampas (pam′pəz): the treeless plains of Argentina

Parliament: a lawmaking body similar to our Congress

passive resistance: opposing a government by quietly refusing to obey its laws

passport: a document issued by a nation that permits citizens to travel abroad and serves to identify them

pastoral nomad: herdsmen who move from place to place on the Sahara with their flocks or herds

patio (pä′ti-ō′): in Spanish America, an open courtyard around which a house is built

Pax Romana: a period of peace maintained by the Romans in their empire for almost 500 years

per-capita (pẽr kap′ə-tə) **income:** the average amount of money received in a year by each individual in a country

perennial (pə-ren′i-əl) **irrigation:** a way of watering the land throughout the year by gradually releasing the water in the reservoir

petitgrain (pet′ə-grān): a Paraguayan oil made from orange leaves, used in flavoring and perfumes

placer (plas′ẽr) **mining:** a process in which a machine sends a powerful stream of water into the graveled hills, washing away the gravel and leaving the gold

platinum (plat′'n-əm): a silvery-white precious metal used in jewelry and in the chemical industry

polyps (pol′ips): tiny sea animals

population density: average number of persons for each square mile of land in a nation or certain area

prime minister (prīm min′is-tẽr): the elected head of the government of Canada and other countries with the same type of government

private property: land or other possessions belonging to a person or group

prophet (prof′it): a person who speaks for God

quebracho (kā-brä′chō): a hardwood tree whose bark yields a brown juice or extract used to tan leather

quinoa (kē′nō-ə): a tall plant in Peru producing seeds used as a grain and leaves used as a vegetable

quota (kwō′tə): the government's share of the products from a Soviet farm or factory

reforms: improvements or changes to correct abuses in government or living conditions

renewable (ri-nōō′ə-b'l) **resource:** a resource that replaces or rebuilds itself in time, such as a forest

representative government: a system of government in which citizens choose certain individuals to speak for them and to make laws

rosewood (rōz′wood′): a valuable cabinet wood that is dark red streaked with black

royalties: a share of the income from a product paid to the owner in return for the use of the property

rural area: a country area entirely away from a city

sabotage (sab′ə-täzh′): cutting down factory production by working slowly or by damaging machinery

samovar (sam′ə-vär): an urn used for heating water

satellite (sat′ə-līt′): a nation which follows the lead or is under the control of another nation; also, a body that revolves, or turns, around a larger one

savanna (sə-van′ə): a tropical land covered with tall, coarse grass

scholarship: money or other aid given to a student to help him continue his studies

seasonal: occurring mainly at one season of the year

self-determination: a system in which people with the same ways of living are given the right to form their own nation

shadoof (shä-do͞of′): a means of lifting water for use in irrigating fields in Egypt

shah (shä): the title of the ruler of Persia and of present-day Iran

sheet erosion: erosion caused by a sheet of water which flows across a sloping field and removes the topsoil

shifting cultivation: the process of constantly moving to new fields as old ones wear out

Shinto (shin′tō): a Japanese religion which once considered the emperor divine; it is based on nature worship

shogun (shō′go͞on'): the title of the lords who ruled Japan during a period of Japanese history

Sikhs (sēks): a religious group in India which worships one God, prohibits the worship of idols, and does not follow the caste system

sisal (sī′s'l): fiber obtained from henequen leaves, used in making rope and heavy cord

snare (snâr): a noose made from strong grass or animal hairs, used to trap birds and small animals

socialism (sō′shəl-iz'm): a system in which the government owns and operates the farms, factories, mines, and other means of production

soil erosion: the washing away of soil by heavy rains

sombrero (som-brâr′ō): a large hat with a wide, turned-up brim

soviet (sō′vi-it): a governing council, or committee, in the U.S.S.R.

sovkho (sov′kō): a government-owned farm in the Soviet Union, established on land never before cultivated

standard of living: the level at which people provide for themselves the necessities and luxuries of life

steppe (step): a vast, grassy region in southeastern Europe and Asia

stratosphere (strat′ə-sfēr'): the upper portion of the air surrounding the earth

subcontinent: a large land mass which is somewhat shut off from near-by lands by natural barriers

subsistence (səb-sis′təns) **farmer:** a farmer who raises only enough food for himself and his family

subsoil: the less fertile soil lying beneath the topsoil

suburban (sə-bûr′bən): surrounding or located just outside a city

subway: an electric train that runs underground or the tunnel in which it runs

sultan (sul′t'n): a Moslem who is both the religious and political leader of a nation

Supreme Soviet: the national council which rules the U.S.S.R.

synthetic (sin-thet′ik): produced artificially in a laboratory or factory

taconite (tak′ə-nīt'): a low-grade, iron-bearing rock

taiga (tī′gə): a great forest region in the U.S.S.R.

taro (tä′rō): a tropical plant which has a large leaf and a fleshy, starchy root; it is a basic food of natives of the South Pacific

technology (tek-nol′ə-ji): the application of scientific methods to work such as farming and industry

trade winds: winds that blow toward the equator from the northeast on the north side of the equator and from the southeast on the south side of the equator

tribute (trib′ūt): taxes, or forced payments, required as the price of protection

truce: an agreement to stop fighting

trustee: a person, organization, or nation that has the care of property not its own

tsetse (tset′si) **fly:** an insect in tropical forest and savanna lands of Africa whose bite carries sleeping sickness

tundra (tun′drə): a region of level, treeless plains in the far North

turbine (tûr′bin): a rotary engine set in motion by a current of water under pressure

underground movement: a group that works together secretly against an enemy

unfailing resource: a resource such as air which cannot be used up

uranium (yoo-rā′ni-əm): a radioactive metal necessary in the making of atomic energy

urban center: a small or large city

vaccine (vak′sēn): a substance introduced into the body to prevent a person from getting a specific disease

vanadium (və-nā′di-əm): a metal used to make steel tougher and harder

velt (velt): an African prairie covered with short grass

wallaby (wäl′ə-bi): a small or medium-sized kangaroo native to Australia

war lord: a Chinese military leader who organized his own army and collected taxes to support it

water table: the top surface of ground water

wattle: a tree or bush with bright-yellow blossoms found in Australia

Western world: the countries of western Europe and other regions of the world which follow western ways of living or customs

wind erosion: the carrying away of topsoil by high winds

yerba mate (yer′bä mä′tā): a South American shrub and the tea made from the leaves of this plant

zebu (zē′bū): the hump-backed cattle of India, used as a work animal

INDEX

a as in hat
ā as in māke
â as in shâre
ä as in cär
e as in let
ē as in wē

ẽ as in o′vẽr
i as in tin
ī as in kīte
o as in top
ō as in nō
ô as in côrd

oo as in cook
ōō as in tōō
oi as in soil
ou as in loud
u as in dust
ū as in hūge

ũ as in fũr
n as in bo*n*
th as in path
th as in *th*ey
zh as in lei′sure

ə = a as in a go′
ə = e as in a′gent
ə = i as in fam′i ly
ə = o as in king′dom
ə = u as in faith′ful

Abadan (ä'bä-dän′), Iran, 295
Abraham (**Abram**), 288
Acapulco (ä'kä'pōōl′kō), Mexico, 192
Accra (ak′rə), Ghana, 420
Aconcagua (ä'kōn-kä′gwä), **Mount**, 209
Addis Ababa (a'dis ä′bə-bə), Ethiopia, 410
Adelaide, Australia, 377, 386, 387
Afghanistan (af-gan′ə-stan'), 266, 295, 478, 479
Africa, 12, 14, 49, 454; countries, 407–420; future, 421; history, 394–399; peoples, 403–406; regions, 400–402; U.S.A. and, 421; *see also* **North Africa**
Afrikaans (af'ri-känz′), 414, 415
Agaña (ä-gä′nyä), Guam, 362, 363
Agra (ä′grä), India, 309, 317
Ainus (i′nōōz), 337
Akron, Ohio, 71
Al'a bam′a, 70
A las′ka, 61, 86, 91–92, 232, 509
Al ba′nia, 491
Al ber′ta, 106, 108
Albuquerque (al′bə-kũr'ki), New Mexico, 83
A lep′po, Syria, 287
Aleutian (ə-lōō′shən) **Islands**, 91
Alexandria (al'ig-zan′dri-ə), Egypt, 279, 395
Algeria (al-jēr′i-ə), 266, 271, 272–273
Algiers (al-jērz′), Algeria, 273
Algoa (al-gō′ə) **Bay**, 394
Allegheny (al'ə-gā′ni) **Plateau**, 65
Alliance for Progress, 221
alliances, 494, 496–497
alphabet, 24, 230
Alps, 49, 155, 159, 160, 162, 168
aluminum, 89, 105, 111, 165, 468
Am′a zon River and Basin, 203, 206, 216, 217, 396
American Samoa, 363
Amman (äm′män), Jordan, 288
Am′ster dam, Netherlands, 125, 146
Amu Darya (ä-mōō′ där′yä) **River**, 253
Amur (ä-moor′) **River**, 229
ancestor worship, 327
Anchorage, Alaska, 92
Andean (an-dē′ən) **lands**, 186, 200–209
Andes (an′dēz) **Mountains**, 180, 181, 209, 211, 441
Angara (än'gä-rä′) **River**, 255
Angkor (ang′kôr), Cambodia, 302
Angola (ang-gō′lə), 413, 418, 419
Ankara (äng′kə-rə), Turkey, 285
Antarctica (ant-ärk′ti-kə), 34, 35, 49, 50, 454, 486
Antwerp (ant′wẽrp), Belgium, 125, 147
ANZUS Pact, 351, 389, 497
Apennine (ap′ə-nīn') **Mountains**, 169
Appalachian (ap'ə-lā′chi-ən) **Mountains and Plateau**, 66, 67, 68, 70
Arabian Peninsula, 290–291
Arabs, 40, 267, 268, 271, 273, 274, 275, 288, 293, 349, 395, 396, 500–501; *see also* Moslems
Ararat (ar′ə-rat'), **Mount**, 286
Araucanians (ar'ô-kā′ni-ənz), 184
archaeologists (är'ki-ol′ə-j sts), 3, 8, 9, 19, 20, 24, 26, 38, 282, 302, 309
Argentina (är'jən-tē′nə), 6, 181, 186, 187, 188, 201, 209, 210–212, 213, 478
A'ri zo′na, 79, 82
Arkansas (är′kən-sô'), 75, 78
art, ancient Chinese, Egyptian, and Greek, 24, 25, 27, 171; of Bali, 350; cave drawings, 3, 19, 20; and cultural needs, 173, 461
Aryans (âr′i-ənz), 294, 309
Asia, 49; early civilizations in, 282–283; East Indies, 347–350; Far East, 302–307, 325–347; the Indian subcontinent, 308–319; Middle East, 282–295; Southeast, 320–324; Soviet, 227, 229, 251–255
Asia Minor, 268, 284, 286
Assur (ä′soor), 282
Assyria (ə-sir′i-ə), 29
Asunción (ä-sōōn-syōn′), Paraguay, 213
Aswan (äs-wän′) **Dam**, 276, 277
Atacama (ä'tä-kä′mä) **Desert**, 204, 206
Atbara (ät′bä-rä') **River**, 277
Athens, Greece, 27, 170, 171, 487
At lan′ta, Ga., 69
Atlantic Coastal Plain, 66
Atlantic Provinces, Canada, 98–100
Atlas Mountains, 272
atomic energy, 37, 430, 439, 477, 481, 493
Auckland (ôk′lənd), New Zealand, 376
Australia, 6, 127, 350, 351, 373, 377–388, 389, 477, 478
Australian Alps, 386
Austria (ôs′tri-ə), 125, 150, 153, 162
Austria-Hungary (ôs′tri-ə-hung′gə-ri), 161, 162, 496
Az′tecs, 183, 184, 185

Babylonians (bab''l-ō′ni-ənz), 25, 39, 282
Baden-Powell (bā′dən-pō′əl), **Robert**, 484
Baghdad (bag′dad), Iraq, 283, 293
Bahamas (bə-hä′məz), 183, 196–197
Bahía (bä-ē′ä) (**Salvador**), Brazil, 186
Bahrein (bä-rān′) **Islands**, 290
Baikal (bī-käl′), **Lake**, 255
Baku (bä-kōō′), U.S.S.R., 249
Balboa (bäl-bō′ä), **Vasco de**, 185
Bali (bä′li), 347, 350
Balkan (bôl′kən) **Peninsula**, 166, 171
Baltimore, Md., 68, 69, 466
bamboo, 10, 326, 330
Banff (bamf), Canada, 107, 108
Bang′kok, Thailand, 320, 324, 351
banking, 441, 477
Bar′bar y pirates, 272
Barcelona (bär'the-lō′nä), Spain, 167
barley, 5, 72, 106, 155, 211, 246, 250, 272, 274, 287, 292, 294, 342
Barranquilla (bä'rän-kēl′yä), Colombia, 203
Basel (bä′z'l), Switzerland, 156
Basutoland (bə-sōō′tō-land'), 414
bauxite (bôk′sīt), 76, 105, 111, 160, 164, 165, 183, 430, 468
Bechuanaland (bek'yū-ä′nə-land'), 413
Beirut (bā′rōōt), Lebanon, 288
Belfast, North Ireland, 144

Belgium, 125, 126, 145, 147, 174, 399, 409, 454, 471, 477, 478
Belize (be-lēz′), Honduras, 181
Benares (bə-nä′riz), India, 317
Bendigo (ben′di-gō), Australia, 385
Benelux, 174, 471
Bengasi (ben-gä′zi), Libya, 274
Bering (bâr′ing) **Strait and Sea,** 91, 232, 357
Berkeley, Calif., 88
Berlin, Germany, 139, 150, 151, 236
Ber mu′da, 183
Bern, Switzerland, 155
Bhutan (bo͞o-tän′), 308, 319
Bikini (bi-ke′nē) **Island,** 363, 366
Bilbao (bil-bä′ō), Spain, 167
Birmingham, Ala., 69, 70
Birmingham, England, 139, 142
Black Sea, 234, 249
Blanc, Mont, 120, 160
Blue Nile, 277, 410
Blue Ridge Mountains, 67
Boers (bōrz), 415, 417
Bogotá (bō′gə-tä′), Colombia, 185, 203, 221, 480
Bohemia (bō-hē′mi-ə), 164
Bolívar, Simón (sē-mōn′ bō-lē′vär), 201
Bo liv′i a, 181, 200, 207–208, 213, 441, 468
Bolshevists (bol′shə-vists), 235, 256
Bom bay′, India, 310, 316, 317
Bonn, Germany, 151, 154
Bonneville Dam, 449, 450
Bordeaux (bôr′dō′), France, 160
Bor′ne o, 347, 349, 350
Bos′por us, 283–284
Boston, Mass., 58–60, 66, 459, 466
Boy Scouts, 484
Brahmans, 309, 313
Brasília (brä-zē′lyə), **Brazil,** 220
Bra zil′, 17, 181, 188, 211, 213, 216–220, 223, 467, 468, 478, 481
Brazilian Highlands, 217–218, 219
Bremen (brā′mən), Germany, 125, 155
Brisbane, Australia, 377, 386, 387
British Columbia, 110–112
British Commonwealth. *See* Commonwealth of Nations
British East India Company, 310, 311
British empire, 140, 142
British Guiana (gi-an′ə), 181, 183
British Honduras (hon-door′əs), 181
Brussels, Belgium, 147
Bryce Canyon National Park, 80
Bucharest (bū′kə-rest′), Rumania, 165
Budapest (bo͞o′də-pest′), Hungary, 161
Buddhism (bood′iz′m), 40, 319, 320, 321, 324, 327, 337, 339, 349
Buenos Aires (bwe′nōs ī′res), Argentina, 209, 210, 211, 212
buffalo, 13, 15, 16, 428
Buffalo, N.Y., 57, 60
Bul ga′ri a, 162, 165, 230, 491
bullfighting, 167, 188
Burma, 307, 320, 321, 322, 323, 351, 478, 479
Butte (būt), Mont., 82
Byrd, Richard E., 34, 55, 376
Byzantium (bi-zan′shi-əm), 232

Cabot (kab′ət), **John,** 97
Cabot, Sebastian, 210
Cabral (kə-bräl′), **Pedro,** 186, 216
cacao (kə-kā′ō), 204, 218, 405, 408, 409, 468, 490
Caesar (sē′zẽr), **Julius,** 157
Cairo (kī′rō), Egypt, 276, 277, 279
Cal cut′ta, India, 310, 316, 317
Cal′ga ry, Alberta, Can., 108
California, 86, 91, 358, 447
caliphs (kā′lifs), 267, 270
Callao (kä-yä′ō), Peru, 206
Cam bo′di a, 320
Cambridge (kām′brij), Mass., 60
Cameroun (kam′ə-ro͞on′), 409
Camp Fire Girls, 484
Canaan (kā′nən), 39, 288
Canada, 6, 60, 91, 92, 430, 467, 468, 470, 478; Atlantic Provinces, 98–100; British Columbia, 110–112; Far North, 112; history and government, 30, 97–98; Prairie Provinces, 106–108; St. Lawrence Lowland, 100–106; and U.S.A., 57
Canal Zone, 195
canals, ancient, 26; Canada, 105–106; China, 302, 330–331, 335, 336; Europe, 123, 124, 136, 146, 157, 169, 249, 275; Panama, 195–196; Suez, 265, 278, 279; Thailand, 324; U.S.A., 60, 71, 75–76, 105, 433
Can′ber ra, Australia, 377, 387
Canterbury Plains, New Zealand, 375
Can ton′, China, 336
Cape of Good Hope, 395, 414
Cape Town, South Africa, 414, 418, 421
Caracas (kä-rä′käs), Venezuela, 202, 205
Carlsbad Caverns National Park, 80
Caroline Islands, 359, 363, 367
Carpenter, Scott, 35
Cartagena (kär′tä-he′nä), Colombia, 203
Carthage (kär′thij), North Africa, 271
Casablanca (kas′ə-blang′kə), Morocco, 272
Cascade Range, 86, 91
Cas′pi an Sea, 293, 294
caste system, 309–310, 311, 312–313
Castro, Fidel, 197, 198
Catherine II of Russia, 233, 234–235
cattle, Africa, 272, 406, 417; Australia, 379, 382, 385; Canada, 105; China, 326; Europe, 123, 144, 145, 164, 167, 168; Iceland, 114; India, 313, 315; Latin America, 190, 209, 211, 212; U.S.A., 78, 82, 95; U.S.S.R., 225, 252
Cauca (kou′kä) **River,** 203
Caucasians (kô-kā′zhənz), 30, 94, 230
Caucasus (kô′kə-səs) **Mountains,** 229
cave dwellers, 11, 18
Celebes (sel′ə-bēz), 347
Central African Republic, 409
Central America, 181, 189, 192–196, 468
Central Valley, Calif., 86, 89–90
Ceylon (si-lon′), 304, 318, 351, 468, 477, 478, 479
Chad, 409
Charlemagne, 147, 149, 157, 168, 495
Charlottetown, Prince Edward Island, 98
Cherbourg (sher′bo͝or′), France, 160
Ches′a peake Bay, 69
Chiang Kai-shek, 329, 330
Chibcha Indians, 184, 185
Chicago, Ill., 71, 72, 84
chicle, chewing gum, 194
Chile (chil′i), 181, 184, 187, 200, 201, 207, 208–209, 478
China, 4, 301, 302, 303, 325–336, 338, 446, 453, 479; ancient, 25–26, 328; Communist, 198, 491; and Japan, 328, 329, 338, 511; as a republic, 329
Christ of the Andes, 209
Christchurch, New Zealand, 376
Christianity, 39–40, 128, 129, 171, 187, 232, 284, 327, 338, 349, 351, 362, 371, 398, 421
chromium (krō′mi-əm), 369, 409, 430
Chungking (choong′king′), China, 329, 335
Churchill, Winston, 499
Cin′cin nat′i, Ohio, 71
city-states, Egypt, 271; Greece, 26, 27, 29, 171, 496; Italy, 168
civil service, 442
civilization, cradles of, 22–26, 173, 271, 282–283, 292, 302, 309
Cleveland, Ohio, 71, 72
cliff dwellings, 13
climate, 14, 23, 50, 51; Africa, 270, 271, 274, 400, 401, 402, 409; Australia, 378; Europe, 120–121, 130, 135; Far East, 303–304;

climate *continued*
  Latin America, 180, 189, 197, 204, 216; as natural resource, 427; New Zealand, 375; U.S.S.R., 227; *see also* **desert regions, Mediterranean climate, rainfall, temperate regions,** *and* **tropical regions**
clothing, 7–10, 342, 438
coal, Africa, 272, 280, 411; Australia, 385; Canada, 108; Europe, 125, 127, 139, 141, 142, 147, 154, 155, 160, 162, 164, 167; Far East, 335, 343; as natural resource, 425, 430, 452; New Zealand, 376; U.S.A., 65, 69, 70, 74, 82, 83, 91, 432; U.S.S.R., 247
Coast Range, 86, 91, 92, 110
cobalt, 104, 409, 430
Coblenz (kō′blents), **Germany,** 154
coffee, 95, 193, 194, 195, 203, 218–219, 291, 350, 368, 468
collective farms, 240, 241, 242, 245–247, 254, 326, 334
Colombia, 17, 181, 185, 195, 200, 202–203, 468, 477
Colombo (kə-lum′bō), **Ceylon,** 318
Colorado (kol′ə-rad′ō), 79, 82, 83, 447
Colorado River and Plateau, 79, 81
Columbia River and Plateau, 84, 86, 90, 91, 110, 449, 450
Columbus, Christopher, 33, 181, 183, 301, 310
Columbus, Ohio, 71
Common Market, European, 174, 176, 471
Commonwealth of Nations, 98, 141, 373, 409, 421
communication, 19–20, 482–487
communism, 198, 256–258, 320, 328, 329, 330
Confucianism, 40, 326–328
Congo, Republic of the, 409–410, 419
Congo Republic, 409
Congo River and Basin, 401, 402, 409, 423
conservation, 429, 430, 432, 444–452
Con′stan ti no′ple, 161, 268, 283, 284, 285
Cook, James, 93, 357, 358, 368, 374, 377, 389
co-operation, individual, 489; international, 174, 461, 471–501; to build understanding, 482–489; in business and industry, 475–477; in meeting threats of war, 174, 496–497; in sharing ideals, 490–501; in sharing knowledge and skills, 477–481; in trade, 174, 471–472; in transportation, 472–475; need for, 22
co-operatives, 137, 145
Copenhagen (kō′pən-hā′gən), **Denmark,** 134, 137, 138
copper, 70, 82, 111, 167, 192, 207, 208, 372, 384, 409, 430, 435, 451, 468
copra (kop′rə), 369, 372, 411, 490
coral islands, 364–367
cork, 167, 272
corn, 5; Africa, 279, 417; Canada, 105; Europe, 159, 164, 165; India, 319; Indonesia, 350; Latin America, 184, 191, 193, 197, 206, 211; Philippines, 372; U.S.A., 72, 444; U.S.S.R., 245, 246
Cortés, Hernando (er-nän′dō kōr-tes′), 185
Costa Rica (kos′tə rē′kə), 181, 186, 194–195, 478
cotton, Africa, 279, 406, 408, 410, 417; China, 326, 334; India, 315, 318; Korea, 346; Latin America, 190, 206, 214, 218, 219; Middle East, 287, 288, 292, 294; as a processed crop, 434, 438; South Pacific, 368; U.S.A., 70, 78; U.S.S.R., 225, 252
Coubertin (ko͞o-ber-tan′), **Pierre de,** 487
Cracow (krak′ou), **Poland,** 161
Crater Lake, 86
Creoles, 200–201
cryolite (krī′ə-līt′), 113
Cuba, 94, 181, 186, 188, 196, 197–198
cultural exchange, 221, 225, 482, 483–484
cuneiform (kū-nē′ə-fôrm′), 24
Curaçao (kyoor′ə-sō′), 183
Czechoslovakia (chek′ə-slō-vä′ki-ə), 153, 162, 164, 230, 491

Dahomey (dä-hō′mā), 409
Dakar (dä′kär′), **West Africa,** 407, 408
Dallas, Texas, 76
Da mas′cus, Syria, 282, 283, 287
Dammam (dam-mam′), **Saudi Arabia,** 291
Danube River and Valley, 162, 164–165
Dar es Salaam (där′ es sə-läm′), **Tanganyika,** 411, 412
Dar da nelles′, 283–284
Darling River, 382
Darwin, Australia, 385, 387, 388
Davao (dä-vou′), **Philippines,** 372
David, 288
Dead Sea, 290
Death Valley, Calif., 86
De Forest, Lee, 37
Delagoa (del′ə-gō′ə) **Bay,** 394
Delhi (del′i), **India,** 317
democracy, self-government: direct, in ancient Greece, 27, 171; representative government and, 28–29, 30, 112, 129, 130, 142, 145, 151, 168, 173, 195, 338, 373, 489, 491, 510
Denmark, 17, 113, 127, 128, 129, 130, 137–138, 197, 468, 478, 491
Denver, Colo., 81, 83, 461
desert regions, 6, 51, 113, 204, 206, 274, 280–281, 282, 287, 290–291, 304, 378, 382, 394, 402, 410, 417
Des Moines (də-moin′), **Iowa,** 71
De troit′, Mich., 57, 71, 72
Dhahran (dä-rän′), **Saudi Arabia,** 291
diamonds, 219, 411, 415, 418, 419, 435
Díaz (dē′äs), **Porfirio,** 189–190
dictators, 30, 157, 168, 197, 213, 255, 256, 257, 320, 511
Diesel (dē′z'l), **Rudolf,** 37
diseases and their control, 37, 195, 402, 425, 457, 458, 478, 479, 480; *see also* **health and safety**
District of Columbia, 67
Dnieper (nē′pēr) **River,** 229, 231, 245, 247, 248
Do min′i can Republic, 181
Don River, 229
Donets (dô-nyets′) **River and Basin,** 229, 237, 247–248, 262
Dub′lin, Ireland, 140, 144, 145
Duisburg (düs′boorkh), **Germany,** 154
Duluth (də-lo͞oth′), **Minn.,** 71, 74
Dunedin (dun-ē′din), **New Zealand,** 376
Düsseldorf (düs′əl-dôrf′), **Germany,** 154
dust storms, 428, 446
Dutch East India Company, 377, 395, 415
Dutch Guiana (gi-an′ə), 181, 183
Dvina (dvi-nä′) **River,** 229

earthquakes, 88, 192, 204, 208, 340
East Africa, 410–411
East Germany, 151, 153, 491
East India Company, British, 310, 311; Dutch, 347, 377, 395, 415
East Indies, 303, 338, 347–350
East Pakistan, 295, 309, 317, 318
Economic Co-operation Administration, 174
Ecuador (ek′wə-dôr′), 181, 200, 204, 468, 478
Edmonton, Alberta, Can., 92, 106, 108
education, adult, 460; Africa, 421; Argentina, 478; Costa Rica, 195, 478; Egypt, 275; Iceland, 114; Japan, 339; Lebanon, 288; literacy,

education *continued*
477–478; need for, 458–460, 477–478; student and teacher exchange, 488; teacher training centers, 480; Turkey, 285–286; Uruguay, 213, 478; U.S.A., 60, 459–460; U.S.S.R., 259
Egypt, 265, 266, 271, 274–279, 284, 454, 478, 480, 501; ancient, 9, 12, 22, 23–24, 38, 39, 274–275
Eisenhower, Dwight D., 481
Elburz (el-boorz′) Mountains, 293
electricity, from coal, 246, 247, 425, 439; from water power, 60, 81, 88, 89, 91, 105, 107, 125, 133–135, 136, 145, 156, 162, 168, 248, 339, 341, 376, 425, 439
Elisabethville, Congo, 409, 421
El Sal′va dor, 181, 194
England, 140; *see also* Great Britain
Eniwetok (en′ə-wē′tok), 363, 366
Equatorial Africa, 409–410
Ericson, Leif, 32
Erie Canal, 60
erosion, 123, 427, 428, 429, 444, 445, 446
Eskimos, 10, 14, 15, 50, 112, 113
Es to′ni a, 260
E th i o′pi a, 277, 402, 410–411, 478, 479, 481
Euphrates (ū-frā′tēz) River, 4, 12, 22, 24, 29, 282, 286, 292
Eurasia (yoo-rā′zhə), 49, 120
Europe, 49; Atlantic nations, 139–160; central, 161–165; Mediterranean, 166–171; Scandinavia, 128–138; Soviet, 227, 229, 236–250; U.S.A. and, 173–175; western, 120–127, 173–175, 453–454
European Coal and Steel Community, 477
European Common Market, 174, 176, 471
Ev′er est, Mount, 49, 319
exploration and colonization, British, 119, 140, 141, 336, 350; Dutch, 146; earliest, 31–33, 119, 128, 394; French, 181, 368; modern, 34–35, 398–399; in New World, 29, 97, 119, 146, 183, 184–185, 186; in Pacific, 357, 374; Portuguese, 166–167, 180, 181, 186; Spanish, 167, 180, 181

factories. *See* manufacturing
Fairbanks, Alas., 92
Far East, China, 303, 325–336; East Indies, 303, 347–350; Indian subcontinent, 303, 308–319; Japan, 303, 337–344; Korea, 303, 337, 345–346; lands of, 302–307; Southeast Asia, 303, 304, 320–324; U.S.A. and, 351
farming, Africa, 272, 273, 274, 275, 279, 404–405, 406, 408, 411, 417; Australia, 378, 382–385; beginnings of, 4–5, 15, 36–37; Canada, 98, 99–100, 105, 106, 108, 111; collective, 240, 241, 242, 245–247, 326, 334; contour plowing, 445; dairy, 66, 72, 105, 111, 123, 136, 137, 138, 144, 146, 155, 156, 168–169, 211, 375, 382; Europe, 121, 123, 131, 132, 133, 135–136, 137, 138, 144, 145, 146, 147, 155, 156, 159–160, 164, 165, 167, 168–169, 171; Far East, 303, 306–307, 326, 330, 331, 334, 342, 346, 349, 350; Greenland, 113; India and Pakistan, 315–316, 318, 319; intensive, 123; Latin America, 190–191, 193, 194, 195, 197, 206, 208–209, 211, 214, 218–219; Middle East, 286–287, 288, 292, 294; New Zealand, 375; Pacific islands, 364, 367, 368, 369, 371–372, 375; plantations, 92, 93, 94, 95, 188, 193, 197, 203, 204, 218–219, 279, 318, 322, 349, 350, 364, 368, 369, 396, 404, 409; regions of basal crops, 436–437; shifting cultivation, 405, 406; subsistence, 193, 204, 208; and technology, 6; U.S.A., 66, 69, 70, 72–73, 78, 81–82, 87, 89–90, 92, 94–95; U.S.S.R., 239–242, 245–247, 252, 253; *see also* irrigation *and various products*
Federal Bureau of Investigation (F.B.I.), 458
ferroalloys, 430, 452
Fertile Crescent, 282–283, 287, 288, 290
Fez, Morocco, 272
fiestas, 179, 188, 198
Fiji (fē′jē) Islands, 362, 363, 364, 368, 369
Finland, 125, 128, 129–130, 138, 234, 260
fiords (fyôrdz), 132, 373
fire, discovery, 36; prevention, 448
fishing, in ancient times, 3, 4, 5, 6; and conservation, 448; Eskimos, 15; Europe, 125, 131–133, 165, 167, 171; Iceland, 114; Japan, 343; Middle East, 294; North Africa, 272; Pacific islands, 366; using a natural resource, 435; U.S.A. and Canada, 66, 69–70, 78, 90, 92, 98, 99, 111; U.S.S.R., 249
five-year plans, 258–259, 334
flax, 9, 72, 106, 164, 211, 240, 315
Florence, Italy, 168
Florida, 68, 70
food, co-operation in getting, 18–19; as man's first need, 3–6; pure-food laws, 456–457
forests, forest products, Africa, 401–402, 404–405; Australia, 386; Canada, 98, 99, 103, 111; conservation of, 429, 430, 432, 435, 446–448; Europe, 138, 162, 165; Latin America, 181–183, 193, 194, 204, 214, 217; rain forests, 51; Southeast Asia, 323; U.S.A., 70, 74, 78, 83, 86, 90–91; trees: almond, 169; banyan, 313–314; chestnut, 169, 334; coconut palm, 279, 318, 350; eucalyptus, 380, 387; mahogany, 193, 194, 204, 402, 490; mulberry, 334, 342; palm, 279, 281, 292, 318, 350; rosewood, 402; sapodilla, 193; sugar maple, 105; teak, 322, 323; *see also* lumbering
Formosa (fôr-mō′sə) (Taiwan), 325, 330, 335, 338, 351
Fort Worth, Texas, 76, 78
France, 119, 125, 126, 147, 157–160, 174, 181, 351, 454, 471, 477, 478, 491, 496, 501, 504–505, 508, 509, 510; in Africa, 273, 284, 399, 407, 409, 417; Arabs in, 268; in India, 310; in Indochina, 320; in Middle East, 284; in New World, 29, 30, 97, 100, 197; in Latin America, 216; present colonies of, 181–183, 368; and Suez Canal, 265; in World Wars I and II, 130, 150, 151, 157, 162, 511
Franklin, Benjamin, 504
Fraser River and Valley, 110, 111
Frederick the Great of Prussia, 150
Fredericton, New Brunswick, Can., 98
free trade, 471
freedom, ideas of, 173, 490–491; movement toward, in India, 311–312; of religion, 30
Freetown, Sierra Leone, 408
French Community, 407, 409, 417, 421
French Foreign Legion, 281
French Guiana, 181
French Revolution, 157
Fu ji ya′ma, Mount, 337, 340
fur trade, 78, 92, 112, 232, 255

Gabon (gä′bōn), 409
Gagarin (gä-gär′in), Yuri, 259
Gama (gä′mä), Vasco da, 33, 310, 394
Gander, Newfoundland, 100
Gandhi (gän′dē), Mohandas K., 311
Ganges (gan′jēz) River and Plain, 309, 312, 315, 317
Gary, Ind., 72
gas, natural, 65, 83, 452
Gautama (gou′tə-mə) (Buddha), 40, 321, 327

Geneva (je-nē′və), Switzerland, 120, 155, 174, 481
Genoa (jen′ō-ə), Italy, 125, 168, 169
Georgia, 70
Germany, 125, 147–155, 363, 399, 496; in World Wars I and II, 130, 140, 150–151, 153, 157, 161–162, 235, 245, 274, 510, 511, 512
Ghana (gä′nə), 409, 412, 420, 421, 468, 490
Ghent (gent), Belgium, 147
Girl Guides, Girl Scouts, 484
Glacier National Park, 80
Glasgow (glas′gō), Scotland, 139, 142
Glenn, John, 34, 35, 390
Gloucester (glos′tẽr), Mass., 66
gold, 435; Africa, 396, 409, 411, 415, 418, 419; Australia, 377–378, 385, 387; "black," 76 (*see also* **oil**); Canada, 104, 111; Ghana, 490; Latin America, 185, 191, 194, 200, 204, 212; New Zealand, 375; Philippines, 372; U.S.A., 74, 82, 87, 91, 92; U.S.S.R., 255
Gold Coast, 395–396, 409, 490
Göteborg (yû′te-bôr′y′), Sweden, 136
government, ancient Greece and Rome, 26–28; beginnings of, 20–21; Brazil, 216–217; colonial, in South America, 200–201; Canada, 98; conservation carried on by, 446, 447, 448, 449; democratic, 27; Iceland, 113–114; Latin America, 188, 189; projects of, to strengthen international ties, 487–488; representative, 28–29; self, 26–27, 30, 114, 171, 373, 489, 491; services provided by, 455–459; Soviet, 256–258; Uruguay, 213; working for, 442–443
Grand Bank of Newfoundland, 99, 167, 435
Grand Canal, China, 331, 335, 336
Grand Canyon, 80
Grand Coulee (ko͞o′li) **Dam,** 84, 91
Grasse (gräs), France, 159
grasslands, 51, 218, 334, 375, 402, 405–406, 410, 417
Great Basin and Range Plateau, 86
Great Britain, 6, 38, 119, 125, 137, 139–144, 351, 454, 468, 478, 481, 491, 496, 501, 510; in Africa, 284, 399, 408, 409, 410, 411, 413, 414, 417; in Australia, 377, 379; in Ceylon, 318; in India, 294, 308, 310–312; in Latin America, 197; in Malaya, 320, 323; in Middle East, 284, 288, 292, 293–294; in New Zealand, 375; in North America, 29, 30, 97, 146; present colonies of, 181–183, 350, 362, 369; representative government

Great Britain *continued*
in, 28–29; and Suez Canal, 265; U.S.A. and, 504, 506, 507; World Wars I and II, 130, 140, 150, 151, 153, 161–162, 511
Great Lakes, 71, 74, 451
Great Salt Lake, 79
Great Smoky Mountain National Park, 67
Great Wall of China, 26, 301, 302, 328, 329, 334, 354
Greece, 6, 171, 284, 479–480; ancient, 26–27, 29, 496
Greenland, 32, 50, 113
Greenwich (grin′ij), England, 42, 144, 370
Grotius (grō′shi-əs), **Hugo,** 497
Guadeloupe (gwä′də-lo͞op′), 183
Guam (gwäm), 359–362, 363, 511
Guatemala (gwä′te-mä′lä), 181, 183, 184, 185, 186, 193–194, 477
Guatemala City, 193
Guiana (gi-an′ə), British, Dutch, and French, 181–183
Guinea (gin′i), 407, 409
Gulf Coastal Plain, 68

Haarlem (här′ləm), Netherlands, 146
Hague (hāg), **the,** Netherlands, 146; Conference (1899), 498
Haifa (hī′fə), Israel, 290
Haiti (hā′ti), 181, 197, 201, 478, 480
Halifax, Nova Scotia, Can., 98, 100
Ham′burg, Germany, 125, 139, 151, 155
Hamilton, Ontario, Can., 103
Hammurabi (hä′moo-rä′bi), 24, 25
Hankow (hang′kou′), China, 335
Hannover (hä-nō′fẽr), Germany, 471–472
Hanoi (hä-noi′), No. Vietnam, 320
Ha van′a, Cuba, 197
Hawaii (hə-wä′ē), 61, 86, 92–96, 153, 357, 358–359, 364, 509, 511
Hawaii National Park, 86
hay, 111, 114, 135, 246, 375
health and safety, 455–458
Hebrews, 39, 40, 288
Helsinki (hel′sing-ki), Finland, 138
hemp, 372
henequen (hen′ə-kin), 191
Hidalgo (ē-däl′gō), Mex., 201
hieroglyphics (hi′ẽr-ə-glif′iks), 24, 276
high (volcanic) **islands,** 364
Hilo (hē′lō), Hawaii, 95
Himalayas (hi-mäl′yəz), 308, 319
Hindu Kush (hin′do͞o ko͞osh) **Mountains,** 295, 310
Hinduism, 40, 312–313, 317, 349

Hispaniola (his′pən-yō′la), 181, 185, 196, 201
Hitler, Adolf, 150, 153, 162, 496, 499
Hobart, Australia, 386, 387
Hokkaido (hōk′ki-dō′), 337, 340, 342
Holy Roman Empire, 147, 149, 161, 162, 168
homes, Africa, 404, 405, 406, 408; American Indians and settlers, 13–14, 431; caves, cliffs, and trees, 11, 12, 13, 14, 18; China, 331; city, 438; of early men, 11–13; India, 14, 314–315; Japan, 338–339, 342; Philippines, 372; Russia, 245–246, 247; of sod, 13, 431; on stilts, 322, 324, 365, 367, 372; today, 14, 16, 438; Turkey, 286
Honduras (hon-door′əs), 181, 194
Hong Kong, 336
Ho no lu′lu, Hawaii, 95, 96, 359
Hon′shu, 340, 342, 344
Hooghly (ho͞og′li) **River,** 316
Hoover Dam, 81, 84, 88
Houston (hūs′tən), Tex., 75–76
Hudson River and **Bay,** 71, 108
human resources, 425, 453–461, 466; protection and use of, 455–461
Hungary (hung′gẽr-i), 125, 162, 164, 491, 496
Hungry Horse Dam, 81
hunting and trapping, 2, 3, 4, 5, 6, 15, 18–19, 78, 255, 379, 406, 448
Hwang Ho, 4, 22, 25, 331, 336, 446

Iberian (ī-bēr′i-ən) **Peninsula,** 166; *see also* **Portugal** and **Spain**
Ibn-Saud (ib″n-sä-o͞od′), 291
Iceland, 32, 113–114
Idaho, 79, 83, 447
Iguassú (ē′gwä-so͞o′) **Falls,** 217, 218
Illinois, 71, 72, 74
immigration, to Australia, 377, 388; to Israel, 288; to Latin America, 188, 216; to U.S.A., 173, 287, 482
Imperial Valley, 89, 90
Incas (ing′kəz), 184, 185, 204, 206
India, 9, 14, 26, 268, 303, 308–319, 467, 468; British in, 294, 308, 310–312; Republic of, 26, 303, 308, 312–317, 319, 351, 453, 468, 477, 478, 479, 481
In di an′a, 71, 72, 74
In di an ap′o lis, Ind., 71
Indians, (East) in Africa, 404; of Latin America, 15, 183–184, 186, 194, 200, 203, 204, 206, 208, 210, 213, 216; of North America, 13–14, 15, 16, 19, 183, 431–432
Indochina, 320
Indonesia, 268, 303, 322, 347–350, 351, 478

Indus River and Valley, 4, 22, 26, 282, 309, 310
Industrial Revolution, 141–142, 173, 317, 430, 432
industry, co-operation in, 475–477; development of, 141; Great Britain, 143; Japan, 341, 343–344; U.S.A., 60, 63, 64, 65, 73, 77–78, 87, 89; *see also* manufacturing
International Atomic Energy Agency, 481
International Bank for Reconstruction and Development, 477
International Court of Justice, 146, 499, 511
International Date Line, 370
International Geophysical Year, 486
International Ice Patrol, 474
International Postal Union, 155
International Red Cross, 155, 457
inventions, ancient Chinese, 26, 302; by early man, 4, 36; in Industrial Revolution, 141; modern, 35–37
I′o wa, 71, 72, 73, 74, 225
Iquitos (ē-kē′tōs), Peru, 206
Iran (ē-ran′), 266, 267, 290, 293–295, 459, 478, 480
Iraq (ē-räk′), 4, 266, 290, 292–293, 478, 479, 481
Ireland, Republic of, 139, 140, 144–145
Irkutsk (er-kootsk′), U.S.S.R., 251, 253, 255
iron, 430, 435, 438, 451, 452; Africa, 272, 273, 280, 409, 411; Australia, 385; Canada, 100, 104, 467; China, 334, 335; Europe, 125, 134, 137, 142, 147, 154, 160, 162, 164, 167; India, 317, 319; Japan, 343; Latin America, 192, 202, 208, 219, 454, 467, 468; New Caledonia, 369; Philippines, 372; U.S.A., 65, 69, 70, 74, 82, 83, 432, 433; U.S.S.R., 247, 250, 255
Irrawaddy (ir′ə-wä′di) **River,** 321
irrigation, 24, 81, 82, 83, 88, 90, 91, 121, 190, 191, 206, 209, 211, 252, 270, 272, 276, 277–279, 291, 292, 307, 316, 318, 386, 435; perennial, 277–279
Islam (is′ləm), 40, 266–270; *see also* Moslems
Ismailia (is-ma-i-lē′yä), Egypt, 279
Israel, 39, 266, 288–290, 501
Istanbul (is′tan-bōōl′), Turkey, 161, 232, 268, 283, 285, 287
Italy, 27, 153, 168–171, 174, 271, 274, 284, 399, 411, 468, 471, 477, 496, 499, 511, 512
Ivan III and Ivan IV of Russia, 232, 233
Ivory Coast, 409
Izmir (iz′mir), Turkey, 287
Jackson, Miss., 69
Jaffa (jaf′ə), Israel, 290
Ja kar′ta, Indonesia, 347
Jamaica (jə-mā′kə), 181, 196, 197
Jamshedpur (jäm′shed-pōōr′), India, 319
Japan, 6, 153, 162, 303, 307, 328, 329, 337–344, 345, 351, 453, 454, 468, 479, 498, 499; in World War II, 320, 338, 359, 362, 363, 371, 388, 496, 511, 512
Java (jä′və), 347, 349–350, 351, 454
Jefferson, Thomas, 272
Jerusalem, 38, 40, 269, 283, 288, 290
Jesus, 39–40, 269
Jews, 288; and Arabs, 500–501
Jo han′nes burg, South Africa, 414, 417, 418, 419, 421
Jordan, 266, 287, 288, 290, 478
Jordan River, 288, 290
Juarez, Benito (be-nē′tō hwä′res), 189
Judaism, 40
Juneau (jōō′nō), Alas., 92
Jura Mountains, 155
jute, 315, 318

Ka la ha′ri Desert, 6, 402, 417
Kalgoorlie (kal-gōōr′li), Australia, 385
Kan′sas, 71, 72, 74
Kansas City, 71
Ka ra′chi, Pakistan, 309, 318, 477
Kar′nak, temple of, 275, 276
Ka tan′ga, Congo, 409, 410
Kauai (kä′ōō-ä′ē), Hawaii, 93
Kazak (kä-zäk′) **S.S.R.,** 252
Kemal Atatürk (ke-mäl′ ä-tä-türk′), 285–286
Kentucky, 70
Kenya (kēn′yə), 404, 411
Kharkov (kär′kôf), Russia, 247
Khartoum (kär-tōōm′), Sudan, 410
Khrushchev (khrōōs′chyōf), **Nikita,** 259
Khyber (ki′bēr) **Pass,** 308, 310
Kiev (kē′yef), U.S.S.R., 231, 232, 236–237, 245
Kilauea (kē-lou-ā′ə), 93
Kilimanjaro (kil′i-män-jä′rō), **Mount,** 400
Kim′ber ley, South Africa, 418, 419
Kingston, Jamaica, 181
Kipling, Rudyard, 323
Kitimat, British Columbia, Can., 111
Kobe (kō-be′), Japan, 344
Koran (kō-rän′), 267
Ko re′a, 303, 337, 338, 345–346
Korean War, 345–346, 494, 501
Kruger National Park, South Africa, 401, 418
Kuala Lumpur (kwä′lə loom-poor′), Malaya, 320
Kublai Khan (kōō′blī kän′), 32, 301, 325
Kung (koong) (**Confucius**), 327–328
Kuwait (kōō-wīt′), 266, 290
Kyushu (ku′shōō′), 342, 344

labor, division of, 16; labor-saving devices, 461; and manufacturing, 439; *see also* work
Ladoga (lä′dō-gä), **Lake,** 238
Lagos (lä′gos), Nigeria, 408
La Guaira (lä gwī′rä), Venezuela, 202
lake dwellers, 12–13, 201
Lanai (lä-nä′ē), Hawaii, 93, 95
language(s), beginning of, 19; dialects, 311; Gaelic, 144–145; Latin America, 180, 184, 187, 216; Lebanon, 287; Liberia, 408; Low Countries, 145; sign, 19; South Africa, 414, 415; Soviet Union, 230, 231; Switzerland, 155–156; U.S.A., 485
Laos (lä′ōs), 320
La Paz (lä päs′), Bolivia, 207
Lapps, 10, 50, 137
Latin America, Andean lands, 200–209; Brazil, 216–220; description and history, 180–188; independence, 201, 211, 213, 217, 496; Middle America, 189–199; Plata River lands, 210–214; U.S.A. and, 221, 508–509
latitude and longitude, 42, 47, 144, 370
Lat′vi a, 206
Laurentian (lô-ren′shi-ən) **Upland,** 104, 112
law, ancient, 23, 24–25; international, 497; parliamentary, 29; Roman, 27–28; *see also* government
League of Nations, 498–499, 510, 511
Leb′a non, 32, 266, 287–288
Le Havre (lə ä′vr′), France, 125, 160
Leiden (lī′d′n), Netherlands, 146
Lena River, 229, 255
Lenin (len′in; *Russian* lyen′in), **Nicolai,** 235, 256, 257
Leningrad, Russia, 236, 237–238
Leonowens (lē′on-ō′enz), **Mrs. Anna,** 489
Leopoldville (lē′ə-pōld-vil′), Congo, 409, 420, 421
Lesseps (le′seps′), **Ferdinand de,** 265
Leyte (lā′tā), 371
Liberia (lī-bēr′i-a), 401, 408–409, 478
libraries, 460, 461, 488

Lib′ya, 266, 274, 284
Lille (lēl), France, 160
Lima (lē′mə), Peru, 185, 200, 206
linen, 9, 144, 147, 240
Lis′bon, Portugal, 167
Lithuania (lith′oo-wā′ni-ə), 260
Little Rock, Ark., 76
Liverpool, England, 142
Livingstone, David, 393, 398, 411
llamas (lä′məz), 205, 206
llanos (lä′nōs), 201, 203
Lofoten (lō′foo-t′n) **Islands**, 132, 133
London, Canada, 103
London, England, 125, 139, 140, 141, 142
Londonderry, North Ireland, 144
Los Angeles (lôs an′gəl-əs), Calif., 86–87, 88, 90, 91, 450
Louise, Lake, 107, 108
Louisiana (lo͞o′i-zi-an′ə), 75, 78
Louisville (lo͞o′i-vil′), Ky., 69
low (coral) islands, 364–367
Low Countries, 145–147
Lucerne (lo͞o-sûrn′), Switzerland, 156
lumbering, 435; Africa, 402, 405; Canada, 99, 111; Latin America, 209; Norway and Sweden, 135, 136; Rumania, 165; U.S.A., 1, 78, 89, 90–91, 92; U.S.S.R., 254, 255; *see also* **forests**
Luxembourg (lüx′san′bo͞or′), 145, 147, 174, 471, 477, 478
Lu zon′, 371, 372
Lyon (lyōn), France, 160

Maas (mäs) **River**, 146
Ma ce do′ni a, 171
McKinley, Mount, 86
Ma da gas′car, 417
Ma dras′, India, 310, 317
Ma drid′, Spain, 166, 167
Mag da le′na River, 203
Magellan (mə′jel′ən), **Ferdinand**, 362, 371
Magellan, Strait of, 208
Mag ni to gorsk′, U.S.S.R., 237, 250
mahogany, 193, 194, 204, 402, 490
Maine, 66
maize, 5, 184; *see also* corn
Malacca (mə-lak′ə), **Strait of**, 350
Malagasy (mal′ə-gas′i) **Republic**, 417
Ma lay′a, 320, 322, 323, 338, 351
Mali (mä′lē), 409
Managua (mä-nä′gwä), Nicaragua, 194
Manchester, England, 142
Manchuria, 329, 334–335, 338, 343, 499
manganese, 219, 272, 351, 409, 430, 467, 468, 490
Ma nil′a, Philippines, 371, 372
Man i to′ba, Canada, 106
manufacturing, Australia, 387; Canada, 99, 102–103; China, 334, 335, 336; Europe, 127, 135, 136, 137, 141, 142, 147, 150, 151, 154, 155, 156, 159, 160, 164, 165, 167, 169, 171; Indian Peninsula, 317, 318; Japan and Korea, 343–344, 346; Latin America, 192, 198, 199; making a living in, 438–441; Middle East, 288; North Africa, 279; Southeast Asia, 323, 324; U.S.A., 59, 68–69, 70, 71–72, 88, 89, 433; U.S.S.R., 238, 247, 250, 254, 258
Maoris (mä′ō-riz), 375, 376
maps, how to use, 42–49; polar projection, 46, 110
Maracaibo (mar′ə-kī′bō), **Lake**, 201
marble, 169, 212
Marianas (mä′rē-ä′näs) **Islands**, 359, 363
Marianas Trench, 34
Marmara (mär′mə-rə), **Sea of**, 283
Marseille (mär′se′y′), France, 125, 158, 160
Marshall Islands, 358, 363
Martinique (mär′t′n-ēk′), 183
Maryland, 67
Maui (mou′ē), 93
Mauritania (mōr′ə-tā′ni-ə), 409
Mayas (mä′yəz), 183, 184, 185, 193
Mead, Lake, 81
Mecca, Saudi Arabia, 266, 267, 268, 291
Medellín (me′*th*e-yēn′) Colombia, 203
Medina (me-dē′nä), Saudi Arabia, 267, 268, 291
Mediterranean (med′ə-tə-rā′ni-ən) climate, 51, 121, 159, 168, 169, 209, 271, 274, 282, 286, 287, 382, 400, 402, 427
Mediterranean lands, 166–171; *see also* **Middle East** *and* **North Africa**
Melanesia (mel′ə-nē′zhə), 359, 364
Melbourne (mel′bērn), Australia, 386, 387, 388
Memphis (mem′fis), Egypt, 275, 282
Menam (me-näm′) **and Mekong** (mā′kong) **rivers**, 321
Mendoza (men-dō′sä), Argentina, 209
Mérida (me′rē-dä′), Mexico, 191
Mesa Verde (mā′sə vâr′dā) **National Park**, 80
Me so po ta′mi a, 4, 12, 24–25, 282
mestizos (mes-tē′zōs), 200, 208, 213
metropolitan areas, 58, 72, 87, 103, 344
Meuse (mūz) **River**, 147
Mexico, 17, 179, 181, 183, 186, 188, 189–192, 201, 477, 480; **Gulf of**, 75, 78
Mexico City, 189, 192
Miami, Fla., 70
Michigan, 71, 72, 74
Micronesia (mī′krə-nē′zhə), 364
Middle America, 181, 189–199
Middle East, 266, 268, 282–295, 441, 454
Middle West, U.S.A., 71–74
Midway Island, 359
Mi lan′, Italy, 169
Mil wau′kee, Wis., 71, 72
Mindanao (min′dä-nou′), 371, 372
mining, 435; Africa, 409, 411, 415, 418, 419; Australia, 385; Canada, 98, 100, 104–105, 111; China, 335; and conservation, 430, 432–433, 451–452; Europe, 137, 147, 154, 162, 164, 167; Greenland, 113; Indonesia, 350; Latin America, 191–192, 194, 202, 204, 206, 207, 208, 219; New Caledonia, 369; open-pit, 73, 74, 82; placer, 91; Southeast Asia, 322; U.S.A., 65, 70, 73, 74, 82–83, 91, 92; U.S.S.R., 247, 250; *see also various minerals*
Min ne ap′o lis, Minn., 1, 71, 72
Min ne so′ta, 71, 72, 73, 74, 225, 452
missionaries, Buddhist, 337; Christian, 128, 187, 338, 351, 362, 371, 398, 421
Mis sis sip′pi, 70
Mississippi River and Valley, 1, 68, 71, 75, 76, 426, 469
Mis sour′i, 71, 72, 74
Missouri River, 71, 81
Mobile (mō-bēl′), Ala., 69
Mogadishu (mō′gä-dē′sho͞o), Somali, 411
Mo ham′med, 40, 166, 266, 267, 269
Molokai (mō′lō-kī′), Hawaii, 93
Mon gol′i a, 255, 326
Mongolian race, 30
Mongols, 232, 310, 325–326
Monroe, James, 409, 508–509, 513
Monroe Doctrine, 509
Mon ro′vi a, Liberia, 409
monsoons, 304, 306, 315, 316, 318, 321, 325, 347
Mon tan′a, 79, 82, 83, 447
Montevideo (mōn′te-vē-*th*e′ō), Uruguay, 210, 213
Montreal (mont′ri-ôl′), Quebec, Can., 101, 102, 103, 108
Morelos (mō-rā′lōs), 201
Mormons, 83
Morocco (mə-rok′ō), 266, 271–272, 478
Moscow (mos′kou), U.S.S.R., 229, 236, 241, 242–244, 257, 258

Moscow River, 243, 244, 249
Moslems (Mohammedans, Moors), 166, 171, 253, 266–270, 271, 281, 282, 284, 286, 287, 291, 295, 308, 310, 311, 318, 349, 371, 410
Mosul (mō-sōōl′), Iraq, 283, 287, 293
motion pictures, 483–484, 487
Mozambique (mō′zəm-bēk′), 413, 418
Mukden (mook′den′), China, 335
Munich (mū′nik), Germany, 155
Murray-Darling Plain, 382–383, 386
Murrumbidgee (mûr′um-bij′i) River, 382
Mussolini (mōōs′sō-lē′nē), Benito, 168

Na ga sa′ki, Japan, 344
Na goy′a, Japan, 344
Nan king′, China, 329, 335
Naples, Italy, 171
Na po′le on I, 145, 157, 216–217, 495–496
Nar′vik, Norway, 137
Na tal′, South Africa, 414, 415, 417
national forests and parks, 67, 80, 86, 107, 401, 418, 429, 430, 447
National Safety Council, 458
Nationalist Chinese, 327, 330
natural resources, 127, 425, 426–433, 466; conservation of, 444–452; uses of, 431–433, 434–443; *see also* human resources
nature worship, 337
Na′va ho Indians, 14, 16
Nebraska, 71, 72, 225
Negroes, 30; in Africa, 281, 396, 403, 404, 414, 415, 417, 418; in India, 309; in Latin America, 186, 187, 197; of Melanesia, 364; slavery of, 183, 396
Ne pal′, 308, 319
Netherlands, 30, 125, 127, 145–147, 174, 454, 471, 477, 491; in Africa, 395, 417; in East Indies, 347, 377; in India, 310; in New World, 60, 197, 216; present colonies of, 181, 183
neutral nations, 155, 157, 162, 167
Neva River, 238
Ne vad′a, 79, 82, 86
New Brunswick, Canada, 97, 98, 99, 100, 101
New Cal e do′ni a, 363, 368–369, 430
New Delhi (del′i), India, 308, 317
New England, 58–60, 66
New Guinea, 347, 350, 364, 365, 381
New Jersey, 66
New Mexico, 79, 82, 83
New Orleans, La., 76, 78
New South Wales, Australia, 381, 382, 383, 385, 386
New York City, 60–63, 64, 85, 146, 450–451, 475, 506
New York State, 66
New York State Barge Canal, 60, 71, 105
New Zealand, 127, 351, 373–376, 389, 478
Newcastle, Australia, 385, 386, 387
Newcastle, England, 142
Newfoundland, Canada, 98, 99, 100
newsprint, 103, 111, 254–255, 435
Ni ag′a ra Falls, 60
Nicaragua (nik′ə-rä′gwə), 181, 193, 194
Nicaragua, Lake, 194
Nice (nēs), France, 160
nickel, 104, 369, 430, 468
Niger, 409
Niger River and Valley, 406, 407, 408, 409, 423
Nigeria (nī-jēr′i-ə) 407, 408, 421, 441
Niihau (nē′ē-hä′ōō), Hawaii, 93
Nile River and Valley, 4, 9, 12, 22, 23–24, 49, 271, 274, 275–277, 394, 410, 423, 454
Nineveh (nin′ə-və), 282
ni′trates, nitrogen, 135, 207, 208
No bel′, Alfred, 37
nomads, 13, 14, 232, 280–281, 291, 294, 379
Norfolk, Va., 69
Normans, 28, 119, 140, 157
North Africa, 266–281, 395
North Atlantic Drift, 120, 131
North Atlantic Treaty Organization (NATO), 174, 496–497, 512–513
North Central states, 71–74
North Dakota, 71, 72, 74
North Island, New Zealand, 373, 375, 376
North Korea, 345, 346, 491, 501
North Pole, 50, 110
North Vietnam (vē′ət-näm′), 320, 351, 491
Northern Ireland, 139, 140, 144
Northern Rhodesia (rō-dē′zhi-ə), 402, 413, 414
Northmen (vikings), 32, 97, 113, 128, 231, 233
Norway, 17, 125, 128, 129, 130–135, 137, 478
Noumeá (nōō′mā-ä′), New Caledonia, 368
Nova Scotia (nō′və skō′shə), Canada, 97, 98, 99, 100
Novgorod (nōv′gō-rōt′), U.S.S.R., 231, 232, 233
Novosibirsk (nō′vō-si-bērsk′), U.S.S.R., 253
Nullarbor (nul-är′bēr) Plain, 382
Nyasaland (nyä′sä-land′), 414

Oahu (ō-ä′hōō), 93, 95
Oakland, Calif., 84, 88
o a′ses, 271, 280, 281, 287, 291
oats, 72, 106, 111, 144, 155, 211, 246, 445
ocean currents, 51, 88, 120, 206, 342
oceanic climate, 51, 120
O'Higgins, Bernardo, 201, 209
Ohio, 71, 72, 74
Ohio River, 68, 71
oil (petroleum), Borneo, 350; Canada, 108; Europe, 125, 127, 162, 164, 165; Latin America, 190, 192, 201–202; Middle East, 288, 289, 290, 291, 293, 295; North Africa, 274, 280; U.S.A., 65, 70, 74, 75, 76, 77, 78, 83, 87, 91, 290, 430, 433, 441, 451–452; U.S.S.R., 249; Venezuela, 454, 468
oil, vegetable, 214, 247, 315, 334, 366, 369, 405, 408; *see also* olives
Ok la ho′ma, 75, 78
Oklahoma City, 76
olives, olive oil, 121, 167, 169, 171, 272, 273, 274, 287, 288, 468
Olympic games, 388, 486–487
Olympic National Forest, 447
O′ma ha, Neb., 71
Omsk, U.S.S.R., 251, 253
On tar′i o, Canada, 98, 100, 103, 104, 105
"open door" in Japan, 338
open-pit mining, 73, 74, 82
O ran′, Algeria, 273
Orange Free State, South Africa, 414, 415
Or′e gon, 86, 90, 91, 358, 447
Organization of American States (OAS), 198, 221, 479, 480, 498
Orinoco (ôr′ə-nō′kō) River, 201
Osaka (ō′sä-kä), Japan, 344
Os′lo, Norway, 130
Ottawa (ot′ə-wə), Ontario, Can., 98, 103
Ottoman empire, 284, 288
O′zark Mountains, 72

Pacific Ocean and islands, 185, 357, 358–376; depth, 358; U.S.A. interest in, 358–363, 389
Pacific states, 86–96
Pago Pago (pä′gō pä′gō), Samoa, 363, 365
Pakistan (pä′ki-stän′), 4, 26, 268, 295, 303, 308–309, 318–319, 351, 477, 478, 479, 481
Palestine, 39, 288, 500–501; *see also* Israel
pam′pas, 210, 211
Panama, 181, 185, 194, 195–196
Panama Canal, 85, 195–196, 221, 509
Panama City, 195

Pan-American Highway, 196, 197
Pan American Union, 221, 498
Papua (pä′po͞o-ə), New Guinea, 381
pa py′rus, paper, 24, 26, 99, 102, 103, 111, 254, 302, 435
Paraguay (pä-rä-gwī′), 181, 207, 210, 213–214
Paraguay River, 210
Paraná (par'ə-nä′) **River**, 210, 212, 218
Paris, France, 139, 157–159, 504
parliament (pär′lə-mənt), Canada, 97, 98; Great Britain, 28–29, 139, 142; Luxembourg, 145
pastoral nomads, 280–281, 291, 294
Pa ta go′ni a, 211
Pax Romana, 495
peace, quest for, 491–501
Peace Corps, 480
peanuts, 315, 372, 406, 411
Pearl Harbor, Hawaii, 95, 153
Pedro I and **Pedro II**, Brazil, 217
Pe king′, China, 327, 329, 330, 336
Pennsylvania, 66
per-capita income, 478, 479
Perry, Commodore, 338
Persia, 267, 293–294
Persian Gulf, 282, 290, 295
Perth, Australia, 377, 387, 390
Peru, 181, 184, 200, 204–206, 207, 430, 481
Peter the Great, 232–234, 238
Petrograd (**Leningrad**), U.S.S.R., 238
pharaohs (fâr′ōz), 23, 275
Philadelphia (fil'ə-del′fi-ə), **Pa.**, 63–65, 506
Philippine (fil′ə-pēn') **Islands**, 167, 338, 351, 370–372, 389, 489, 511, 513
Phoenicians (fi-nish′ənz), 32, 271, 287
Phoenix (fē′niks), Ariz., 82, 83
phosphates (fos′fāts), 70, 272, 273, 274
physical needs, **man's**, 2–3; clothing, 7–10; food, 3–6; shelter, 11–14
Piccard (pē'kär′), **Auguste** and **Jacques**, 34
Piedmont (pēd′mont), 68
Pinchot (pin′shō), **Gifford**, 447
Pittsburgh, **Pa.**, 65, 433
Pizarro (pē-thär′rō), **Francisco**, 185
Plata River lands, 210–214
Po Valley, 168–169
Poland, 125, 130, 153, 161, 162, 164, 230, 231, 240, 260, 491, 496, 511
Polo, **Marco**, 32, 33, 301, 337, 483
Pol y ne′sia, 93, 95, 364, 373, 375
polyps (pol′ips), 364–367
population density, 126–127, 183, 274, 302, 312, 321, 326, 366, 382, 395, 408, 453–454
Port Radium, Canada, 105
Port Said (sä-ēd′), Egypt, 279
Portland, Me., 66
Portland, Ore., 86, 89
Portugal (pôr′cha-g'l), 166–167, 490; in Africa, 399, 407, 413; early exploration by, 33, 394; in East Indies, 350; in India, 310; in New World, 180, 181, 186, 216
Portuguese Guinea, 407, 413
potatoes, 111, 114, 135, 144, 155, 164, 167, 184, 204, 206, 242, 364, 372
Potosí (pō'tō-sē′), Bolivia, 207
power, and manufacturing, 439; sources of, 65; *see also* **atomic energy**, **steam power**, **water power**
Prague (präg), Czechoslovakia, 163, 164
Prairie Provinces, Canada, 106–108
Pre to′ri a, South Africa, 414, 418
prime meridian, 144, 370
Prince Edward Island, Canada, 98, 99
Puebla (pwe′blä), Mexico, 192
Pueblo (pweb′lō), Colo., 82
Puerto Rico (pwer'tə rē′kō), 183, 196, 198–199, 509
Puget (pū′jit) **Sound Lowland**, 86, 90
Punta Arenas (po͞on′tä ä-re′näs), Chile, 209
puppet nations, 260, 326, 491
Pygmies, 403
Pyongyang, North Korea, 345, 346
pyramids, 24, 38, 275
Pyrenees (pēr′a-nēz') **Mountains**, 121, 159

Qatar (ko′tor), 290
Quebec (kwi-bek′), city, Canada, 97, 101, 102; province, 97, 98, 100, 102, 103, 104, 105
Queensland, Australia, 381, 382, 385, 386
Quezón (ke′sōn), **Manuel**; Quezón City, 372
quinine (kwī′nīn), 351
Quito (kē′tō), Ecuador, 204

Rabat (rä-bät′), Morocco, 272
races of mankind, 30
radio, 37, 487
railroads, Australia, 386; Canada, 106, 110; Europe, 123, 124, 154, 156, 165; India, 319; Japan, 344; Java, 349; Latin America, 210; Middle East, 291; U.S.A., 1; U.S.S.R., 243, 251, 253, 255; of the world, 472
rainfall, 51, 434, 435; Canada, 110; Ceylon, 318; China, 325, 326;
rainfall *continued*
Europe, 120, 121, 145, 169; Hawaii, 95; Indonesia, 347; Latin America, 189, 190, 208, 216, 219; New Zealand, 375; Southeast Asia, 321, U.S.A., 66, 91
rain forests, 51
Rainier (rā-nēr′), **Mount**, 86
Rama IV of Thailand, 489
Ran goon′, Burma, 320, 324
Rawalpindi (rä'wəl-pin′di), Pakistan, 318
Red Cross, 155, 457; Junior, 484
Regina (ri-jī′nə), Saskatchewan, Can., 106, 108
religions, ancestor worship, 327; ancient, 38–40; belief in one God, 39, 267, 312; Buddhism, 40, 319, 320, 321, 324, 327, 337, 339, 349; Christianity, 39–40, 128, 129, 171, 187, 232, 284, 327, 338, 349, 351, 362, 371, 398, 421; churches and missions, mosques and minarets, 187, 206, 245, 269, 272, 274, 275, 276, 285, 291, 293, 318; Confucianism, 40, 326–328; Hinduism, 40, 312–313, 317, 349; Islam, 40, 266–270; Judaism, 40; Mormon, 83; nature worship, 337; Shinto, 337; Sikh, 312; of the world, 492; *see also* temples
Re′no, Nev., 81
Reykjavik (rā′kyä-vēk'), Iceland, 114
Rhine River, 146, 154
Rhodes, **Cecil**, 414
Rhodesia, 402, 405, 413–414, 418
rice, 5, 6; Africa, 279, 411, 417; Far East, 303, 304, 306, 307, 315, 316, 318, 319, 322, 324, 326, 343, 346, 347, 350; Italy, 169; Latin America, 194, 197, 218; Middle East, 292, 294; Philippines, 372; U.S.A., 78, 90
Rio de Janeiro (rē′oo di zhə-nā′-roo), Brazil, 216, 218, 219–220
Rio de la Plata (rē′ō də lä plä′tä) **nations**, 210–214
Rio Grande (rē′ō grand′; *Spanish*, rē′ō grän′dā), 75, 81
Riyadh (rē-yäd′), Saudi Arabia, 291
Rocky Mountain National Park, 80
Rocky Mountain states, 79–84
Rocky Mountains, 79, 110
Roman empire, 29, 148–149, 157, 166, 168, 284, 495
Rome, Italy, 27, 28, 39, 168, 170, 171, 271, 487, 495
Roosevelt (rō′zə-velt'), **Franklin D.**, 270, 499
Roosevelt, **Theodore**, 399, 447
Rosario (rō-sä′ryō), Argentina, 212
Rostov (rō-stōf′), U.S.S.R., 249

Rotterdam, Netherlands, 125, 146
royalties, oil, 291, 295
rubber, 318, 322, 350, 396, 405, 409, 490; synthetic, 452; treatment of, 37
Ruhr (roor) **River and Valley,** 154–155
Ru ma′ni a, 125, 164–165, 491
Rurik (roor′ik), 231
Russia, 161, 496, 508, 509; and Finland, 130; freedom for, 491; and Japan, 338, 345; in Middle East, 284, 294; and Turkey, 284; *see also* **Soviet Union**
Russian Revolution, 235
Russian S.F.S.R., 226, 229–230
rye, 72, 106, 135, 155, 164, 240, 246

Sac ra men′to, Calif., 89
Sahara, 51, 266, 280–281, 394
Saigon (sī-gōn′), South Vietnam, 320
St. Anthony, Falls of, 1
St. John, New Brunswick, Can., 100, 101
St. John's, Newfoundland, Can., 98
St. Lawrence Lowland, 100–106
St. Lawrence River and Seaway, 71, 100, 103, 105, 106, 116, 473
St. Louis, Mo., 71, 72
St. Paul, Minn., 1, 71
St. Petersburg, Russia, 234, 236
Salk (sôlk), **Jonas,** 37
salt, 74, 452
Salt Lake City, Utah, 81, 83
Sal′va dor, Brazil, 186
Samarkand (sam′ẽr-kand′), U.S.S.R., 253
Samoa (sə-mō′ə), 362, 363, 365
San Diego (san′ di-ā′gō), Calif., 86, 89, 90
San Francisco, Calif., 84, 86, 87–88; Conference, 500
San José (sän hō-se′), Costa Rica, 194
San Juan (sän hwän′), Puerto Rico, 183
San Martín (sän′ mär-tēn′), **José de,** 201, 211
San Salvador, El Salvador, 194
Santiago (sän′tē-ä′gō), Argentina, 209
Santiago, Chile, 209
Santo Domingo (san′tō də-min′gō), 185
Santos (sän′toos), Brazil, 186, 218, 220
São Paulo (soun pou′loo), Brazil, 216, 220
Sas katch′e wan, Canada, 106
satellites, space, 35, 259; nations, 151, 162, 164, 171, 255
Saudi (sä-o͞o′di) **Arabia,** 266, 290, 291, 458
savanna, 400–401
Scan di na′vi a, 32, 128–138
Scheldt (skelt) **River,** 146
science and scientists, 3, 4, 6, 35–37, 259, 486
Scotland, 140, 142
Se at′tle, Wash., 86, 89, 91
Seine (sen) **River,** 157
Senegal (sen′i-gôl′), 409
Seoul (sōl; *Korean* sä-o͞ol), So. Korea, 345, 346
sequoias (si-kwoi′əz), **Sequoia National Park,** 86, 429
Seward, Alas., 92
Shanghai (shang′hī), China, 331, 335
Shan′non, Ireland, 145, 236
Shatt-al-Arab (shat′əl-ä′räb), 282, 292
sheep, 9; China, 326; Europe, 141, 144, 159, 164, 165, 171; Greenland, 113; Iceland, 114; Latin America, 206, 209, 211, 212; Middle East, 287, 294, 295; New Zealand and Australia, 375, 382, 383–385; North Africa, 270, 272, 280; U.S.A., 78, 82; U.S.S.R., 252
Sheffield, England, 142
shelter, need for, 11–14, 16; sharing of, 18; *see also* **homes**
Shin′to, 337
shipping, 125, 140–141; *see also* **trade**
Siam. *See* **Thailand**
Si ber′i a, 229, 231, 232, 251, 253–255, 259, 302
Sierra Leone (si-er′ə lē-ō′ni), 401, 408, 419
Sierra Nevada, 86
Sikhs (sēks), 312
Si Kiang (sē′ kyäng′), 336
silk, 9–10, 160, 169, 334, 342, 344
silver, 82, 104, 111, 167, 185, 191, 194, 200, 204, 207, 208, 385
Singapore (sing′ə-pôr′), 322, 323–324, 338
sisal (sī′s′l), 191
Sit′ka, Alas., 92
slavery, 183, 201, 272, 309, 396
Slavs, 230, 231
Snake River, 81, 91
socialism, in the U.S.S.R., 256
social-studies skills:
  chart making, 117, 177, 223, 263, 391
  critical thinking, 55, 117, 176, 177, 223, 263, 298, 299, 354, 355, 390–391, 423, 463, 503, 513
  making field trips, 55, 177
  making reports, 55, 116, 177, 354, 391
social-studies skills *continued*
  making summaries, 463, 502
  outlining, 117, 299
  putting events in order, 116, 177, 262, 353, 502, 513
  studying and making graphs, 297, 355, 503
  understanding cause and effect, 263, 463
  using maps, 54, 115, 176, 222, 261–262, 298, 353, 390, 422, 462, 502
  using reference books, 54–55, 503
  word study, 17, 41, 96, 114, 138, 175, 199, 221, 250, 261, 281, 296, 324, 352, 369, 389, 406, 422, 443, 462, 501
Sofia (sō′fi-ə), Bulgaria, 165
soil, conservation of, 444–446; erosion of, 123, 427, 428, 429, 444, 445, 446
Soil Conservation Service, 446
Solis (sō-lēs′), **Juan de,** 212
Solomon, 288
Somali (sō-mä′li), 411
Soo Canal, 433
South Africa, 127, 401, 402, 404, 414–419, 421, 467
South America, 48, 167, 181; *see also* **Latin America**
South Carolina, 70
South-Central Africa, 413–414
South Central states, U.S.A., 75–78
South Dakota, 71, 72, 74
South Island, New Zealand, 373, 375, 376
South Korea, 345, 346, 491, 501
South Pole, 50, 55
South Vietnam (vē′ət-näm′), 320, 351, 491
Southeast Asia, 303, 304, 320–324, 441, 453
Southeast Asia Treaty Organization (SEATO), 351, 497
Southern Alps, 373, 375
Southern Rhodesia, 402, 413, 414
South-West Africa, 417
Soviet Union, 165, 174, 198, 225, 284, 302, 491; in Asia, 227, 229, 251–255; description and history, 226–235; in Europe, 227, 229, 236–250; present-day, 256–260; R.S.F.S.R., 226, 229–230; in World War II, 150–151, 162
soviets, 226, 235, 258
soybeans, 326, 334, 335
space travel, 34–35, 259, 390
Spain, 145, 166–167, 490, 508; in Africa, 399; Moors in, 268; in New World, 29–30, 180, 181, 183, 184–185, 200, 210, 211, 213
Spanish-American War, 94, 358, 359, 362, 371

Spokane (spō-kān′), Wash., 89, 91
Sputnik I (spoot′nik), 259
Stalin (stä′lin), **Joseph**, 257, 258, 496
Stalingrad (**Volgograd**), U.S.S.R., 237, 248
Stamboul (stäm-bo͞ol′), Turkey, 285; *see* **Istanbul**
Stanley, Henry M., 393, 398, 411
steam power, 37, 63, 141
steel, 37, 430, 433; Africa, 409; Australia, 385; Canada, 100; China, 334, 335; Europe, 125, 136, 142, 143, 147, 154, 164; India, 317, 319; Japan, 344; Latin America, 192, 219; U.S.A., 69, 72, 82, 467; U.S.S.R., 247, 250
steppes, 51, 229, 253
Stock′holm, Sweden, 136
Stockton, Calif., 89
Stonehenge, 38
subways, 63, 242, 244, 442
Sucre (so͞o′kre), **Bolivia**; **General Sucre**, 207
Sudan (so͞o-dan′), 396, 400–401, 405, 410
Suez, Egypt; **Suez Canal**, 265, 278, 279, 290, 501
sugar, 78, 92, 93, 94, 95, 105, 136, 155, 159, 164, 194, 195, 197, 206, 211, 214, 218, 245, 246, 253, 279, 315, 319, 369, 372, 382, 385
sulphur, 77, 78
Sumatra (soo-mä′trə), 322, 347, 350
Su mer′i ans, 24
Sun Yat-sen (soon′ yät′sen′), 329
Suomi. *See* **Finland**
Superior, Minn., 71, 74
Surinam (soor′i-näm′), 181
Su′va, Fiji Islands, 363, 369
Swaziland (swä′zi-land′), 414
Sweden, 125, 128, 129, 130, 135–137, 234, 478, 491
Switzerland, 12–13, 17, 155–157, 161, 478
Sydney (sid′ni), Australia, 377, 386, 387
synthetic materials, 10, 37, 438, 451, 452
Syria, 266, 279, 287, 290
Syrian Desert, 287, 290

Tabriz (tä-brēz′), Iran, 294
taconite (tak′ə-nīt), 452
Tahiti (tä-hē′ti), 364
taiga (tī′gə), 50, 227–228
Taipei (tī′pā′), Formosa, 330, 335
Taiwan (tī′wän′). *See* **Formosa**
Tampico (täm-pē′kō), Mexico, 190, 192
Tanganyika (tang′gan-yē′kə), 404, 411, 412
Tanganyika, Lake, 393
Tasman (täs′män), **Captain**, 374, 377
Tasmania, 381, 382, 385, 386
Tatars (tä′tẽrz), 230, 232, 252
Taxco (täs′kō), Mexico, 192
Tchaikovsky (chī-kōf′ski), 238
tea, 315, 318, 324, 326, 334, 342, 350, 411, 468
teakwood, 322, 323
Tegucigalpa (te-go͞o′sē-gäl′pä), Honduras, 194
Tehran (te′ə-rän′), Iran, 294, 295
Tel Aviv (tel′ ä-vēv′), Israel, 289, 290
television, 37, 487
temperate regions, 23, 50, 120–121, 373, 375, 378–379, 382, 400, 402
temples, 24, 38, 39, 40, 83, 193, 275, 276, 302, 303, 317, 339
Ten nes see′, 68, 70
Texas, 75, 78
textiles, 143, 279, 317, 334, 343; *see also* **cotton, linen, silk, synthetics**
Thailand (tī′lənd), 307, 320, 321, 322, 323, 324, 351, 478, 479, 481, 489
Thames (temz) **River**, 142
Thebes (thēbz), Egypt, 275, 282
Thirty Years' War, 497
Thrace (thrās), Turkey, 286
Three Rivers, Quebec, Can., 102
Ti bet′, 319, 326
Tientsin (tin′tsin′), China, 331, 336
Tierra del Fuego (tyer′rä del fwe′gō), 209
Tigris (tī′gris) **River**, 4, 12, 22, 24, 29, 282, 286, 292
tin, 207, 322, 350, 409, 430, 441, 468
Tirana (tē-rä′nə), Albania, 171
Titicaca (tē′tē-kä′kä), **Lake**, 208
Titov, Gherman (gâr′män tē′tōf), 259
tobacco, 69, 70, 105, 165, 171, 197, 214, 287, 294, 334, 434
Togo, 409
Tokyo, Japan, 340, 344
To le′do, Ohio, 71
tools and weapons, early, 2, 3, 4, 7, 8, 16; modern, 492–493
To ron′to, Ontario, Can., 103
Tours (to͞or), France, 268
Toussaint L'Ouverture (to͞o′sa*n*′ lo͞o′vâr′tür′), 201
trade, Africa, 394–396; ancient routes for, 282–283; Australia, 387; Benelux and Common Market, 174, 471; Europe, 125, 140–141, 142, 146, 149, 173, 174; free, 471; Hong Kong, 336; international, 466–472, 509; Japan, 338,
trade *continued*
343–344; Latin America, 220; need for, 127; Russia, 245; trade fairs, 471–472
trade winds, 95, 196
transportation, Africa, 421; air, 88, 92, 125, 145, 173, 291, 318, 359, 363, 421, 441, 442, 475, 476, 480; city, 63, 242, 244, 442; Europe, 123–125, 141, 156, 157, 238, 243, 248–249; making a living in, 441–442; and manufacturing, 441; need for, 469–471; water, 1, 26, 71, 76, 105–106, 123, 154, 162, 195–196, 229, 243, 248–249, 331, 407, 441, 469, 470, 473; teamwork in, 472–475; *see also* **canals** *and* **railroads**
Trans-Siberian Railroad, 243, 251, 253, 255
Transvaal (tranz-väl′), South Africa, 414, 415
Trikkala (trē′kä-lä), Greece, 488
Triple Alliance, Triple Entente (än-tänt′), 496
Tri′po li, Libya, 274, 284
tropical regions, 50, 51, 180, 189, 203, 206, 207, 214, 216, 217, 218, 330, 347–350, 378, 382, 385, 400, 401–402, 409
truce, 320, 346, 501
Trust Territory of the Pacific, 389
trusteeship, 363, 411, 417
tsetse (tset′si) **fly**, 402, 458
Tucson (to͞o′son), Ariz., 488
Tul′sa, Okla., 75, 76
tundra, 50, 92, 227
tung′sten, 430
Tunis, Tunisia, 273, 284
Tunisia, 266, 271, 273–274
Turin (tyoo-rin′), Italy, 169
Tur′ke stan, 253, 268, 284
Turkey, 266, 283–287
Turkish empire, 284, 288, 292
Turkmen S.S.R., 252
Turks, 161, 234, 268
Twelve Tablets, 28

U gan′da, 411, 421
Ujiji (o͞o-jē′ji), Tanganyika, 393
Ukraine (ū-krān′), 225, 226, 237, 245
underdeveloped lands, 213, 411, 454; health in, 457–458; sharing knowledge and skills with, 477–481
United Arab Republic, 279
United Kingdom. *See* **Great Britain**
United Nations, 63, 174, 345, 363, 389, 479–480, 481, 485, 498, 499–501, 512
United States, 6, 10, 14, 16, 232; and Africa, 421; aid to other nations, 480–481, 513; and Canada,

United States *continued*
57–114; conservation in, 445–452; Constitution, 455, 488, 506–507; and Far East, 338, 351; F.B.I., 458; Forest Service, 447; government services, 455–459; U.S.I.A., 487–488; interest in the Pacific, 358–363, 389; islands owned by, 183; and Latin America, 221; and Liberia, 409; life expectancy in, 478; living standards in, 17, 478; Middle West, 71–74; natural resources, 59, 69–70, 72, 74, 76, 78, 82–83, 89–92, 95, 428, 430, 431–433; Northeast, 58–66; Pacific states, 86–96; and Panama Canal, 195–196, 221; Peace Corps, 480; and Philippines, 371, 389; population, 127, 454; Rocky Mountain states, 79–84; South Central states, 75–78; and South Korea, 346; Southeast, 67–70; War Between the States, 509; War of 1812, 507; and western Europe, 173–175; world responsibility, 510–513; in World War I and II, 130, 150, 151, 153, 162, 363; world-wide projects, 487–488
Universal Postal Union, 486
untouchables, 313, 314, 315
Upper Volta, 409
Ural (yoor′əl) **Mountains**, 227, 229, 249–250
uranium (yoo-rā′ni-əm), 82, 104–105, 164, 280, 409, 430
Uruguay (o͞o′ro͞o-gwī′), 181, 186, 188, 210, 211, 212–213, 478
Utah (ū′tä), 79, 82, 86
Uzbek (ooz′bek) **S.S.R.**, 230, 252

Vaal (väl) **River**, 418
vaccine, 37
va na′di um, 206, 430
Vancouver, Canada, 107, 110
Vatican City, 171
veld (velt), 402, 414, 417
Venezuela (ven′ə-zwē′lə), 181, 185, 188, 200, 201–202, 441, 454, 467, 468, 480
Venice, Italy, 168, 169
Veracruz (vä′rä-kro͞os′), Mexico, 185, 190
Ve su′vi us, Mount, 171
Victoria, Australia, 381, 382, 384, 385, 386
Victoria, British Columbia, Can., 110
Victoria, Hong Kong, 336
Victoria, Lake, 411
Victoria Falls, 398, 413
Vi en′na, Austria, 161, 162, 268, 284
Vietnam (vē′ət-näm′), 320; *see* **North Vietnam, South Vietnam**
vikings (**Northmen**), 32, 97, 113, 128, 231, 233
vineyards, 123, 159, 167, 171, 209, 211, 273, 287, 417
Virgin Islands, 183
Vir gin′i a, 70; University of, 459
Vladivostok (vlä′di-vōs-tōk′), U.S.S.R., 251, 253, 255
Voice of America, 487
volcanic islands, 364, 367
volcanoes, 86, 93, 95, 171, 204, 340, 350, 371, 374
Vol′ga River, 229, 237, 248–249, 250
Volgograd (**Stalingrad**), U.S.S.R., 237, 248
Volta Redonda (vôl′tə re-*th*ōn′də), Brazil, 219

Waikiki (wī′kē-kē′), Hawaii, 95
Wake Island, 359
Wales, 140
war, costs of, 494; co-operation in meeting threats of, 174, 496–497
War of 1812, 507
war lords, 329
War′saw, Poland, 164
Wasatch (wô′sach) **Mountains**, 81
Washington, D.C., 68
Washington, George, 506, 507
Washington State, 86, 90
water, artesian wells, 382–383; conservation of, 450–451; as natural resource, 425, 427, 428; pure, 455–456; *see also* **irrigation** *and* **transportation, water**
water buffalo, 306, 315, 330
water power, 60, 68, 105, 110, 125, 133, 141, 156, 162, 385, 386, 425, 432
Watt, James, 141
Wa tu′sis, 403
weapons. *See* **tools and weapons**
weather ships, 474–475
Wellington, New Zealand, 376
West Africa, 401, 407–409, 419
West Germany, 150, 151, 153, 154, 155, 174, 454, 471, 477, 478
West Indies, 181, 183, 186, 189, 196–199
West Pakistan (pä′ki-stän′), 295, 308–309, 318
West Virginia, 69, 70
Western Australia, 381, 385, 387
whaling, 133, 343
wheat, 5; Africa, 272, 274, 279, 417; Australia, 382; Canada, 105, 106, 108, 111; China, 326, 330, 331, 335; Europe, 136, 144, 159, 164, 165, 167, 168; Indian Peninsula, 316, 319; Japan and Korea, 342, 346; Latin America, 190–191, 209, 211; Middle East, 286–288, 292, 294; U.S.A., 1, 72, 78, 81, 82, 90; U.S.S.R., 245, 246, 250, 253
wheel, invention of, 36
White Nile, 277, 410
White Russia, 231, 239–242
Whitney, Mount, 86
wildlife, conservation of, 448–450; as natural resource, 428
Willamette (wi-lam′it) **Valley**, 86, 90
Wilson, Woodrow, 510
Windsor, Ontario, Can., 57, 103
Winnipeg, Manitoba, Can., 106, 108
Wisconsin, 71, 72, 74
Witwatersrand (wit-wô′tẽrz-rand′), South Africa, 418
wool, 9, 78, 141, 144, 165, 206, 209, 211, 294, 295, 375, 382, 387, 417, 468
work, ways of making a living, 15–17, 434–443; *see also* **labor**
World Bank, 477
World Court, 146, 499, 511
World War I, 130, 150, 157, 161–162, 235, 363, 493, 494, 496, 510
World War II, 130, 140, 150–151, 153, 162, 168, 171, 174, 245, 247, 250, 270, 274, 320, 329, 338, 359, 362, 363, 371, 388, 411, 452, 488, 491, 493, 494, 496, 499, 511–512
writing, ancient Egyptian, 23–24, 276; Chinese, 302; picture, 19; Sumerian, 24; *see also* **communication**
Wy o′ming, 79, 82, 83

Yang′tze River, 330, 335
Yellow River and Sea, 4, 25, 446
Yellowstone National Park, 80
Yem′en, 266, 291
yerba mate (yer′bä mä′tā), 214
Yokohama (yō′kə-hä′mə), Japan, 344
Yorktown, Va., 506
Yosemite (yō-sem′ə-ti) **Park**, 86
Youngstown, Ohio, 72
Yucatan (ū′kə-tan′), 183, 184, 190, 191
Yugoslavia (ū′gō-slä′vi-ə), 162, 163, 165, 230, 496
Yu′kon River and Territory, 92, 111, 112

Zambezi (zam-bē′zi) **River**, 398, 413
zinc, 70, 74, 82, 111, 147, 164, 191, 208, 385
Zion National Park, 80
Zionism, 288
Zurich (zoor′ik), Switzerland, 156

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